BEFORE THE BOARD OF OIL, GAS AND MINING

DEPARTMENT OF NATURAL RESOURCES

IN AND FOR THE STATE OF UTAH

IN THE MATTER OF THE APPLICATION OF EL PASO E&P COMPANY, L.P. FOR APPROVAL OF LAWSON 1-21A1 WELL LOCATED IN THE NE QUARTER OF THE SW QUARTER OF SECTION 21, T1S, R1W, USM, DUCHESNE COUNTY, UTAH, AS A CLASS II INJECTION WELL.

DOCKET NO. 2011-001 CAUSE NO. UIC-359.

REPORTER'S TRANSCRIPT OF PROCEEDINGS

TAKEN AT: DEPARTMENT OF NATURAL RESOURCES
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84116

DATE: January 26, 2011

TIME: 3:17 p.m. to 6:20 p.m.

REPORTED BY: Jeff S. Eaton, RPR/CSR

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Samuel C. Quigley
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Marie OKeefe, Senior Regulatory Analyst
Jim Borer, Senior Staff Geologist
Jordan R. Nelson, Senior Production Engineer

FOR THE RESPONDENT: Valerie M. Cassler Hudson, Ph.D.

FOR THE DIVISION:

Mark L. Reinbold, Geologist
Brad Hill, Geologist, Permitting Manager
Dustin K. Doucet, Petroleum Engineer

ALSO PRESENT: Jared Jensen, Home Owner

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PROCEEDINGS

JANUARY 26, 2011 3:17 p.m.

CHAIRMAN JOHNSON: So that brings us to item No. 4 on the agenda, which is in the matter of the application of El Paso E&P Company, LP, for approval of Lawson 1/21A1 Well located in the northeast quarter of the southwest quarter of section 21, township 1 south, range 1 west, Uintah Special Meridian, Duchesne County, Utah, as a Class II injection well.

Mr. MacDonald, you're representing El Paso?

MR. MacDONALD: I am, Mr. Chairman.

CHAIRMAN JOHNSON: Mr. Alder, you're representing the Division?

MR. ALDER: Yes, sir.

CHAIRMAN JOHNSON: And I understand, Ms. Cassler, you're the Respondent in this matter?

MS. HUDSON CASSLER: Yes, Mr. Chairman.

CHAIRMAN JOHNSON: Will you just introduce yourself real quickly just for the record.

MS. HUDSON CASSLER: Yes.

CHAIRMAN JOHNSON: Your name and your address.

MS. HUDSON CASSLER: Yes, my name is Valerie Hudson Cassler. My husband and I own the property at 801 West 5080 North in Roosevelt, Utah, which is less than a thousand feet from the proposed Lawson injection

well.

CHAIRMAN JOHNSON: Okay. Thank you.

Okay. Mr. MacDonald, I believe you're going first.

MR. MacDONALD: Yes, Mr. Chairman.

Just so you understand the procedure, the Division did file this notice for agency action because under the rules they initially act under informal adjudication procedures when an application is filed. They do their assessment and then publish and send out notice and if any objections are received under the rules, then the Division is required to docket it and notice it up to the board for hearing under the Division rules.

So that is why the Division filed the notice of agency action but as the applicant, we have the burden of proof in the proponent of the application.

CHAIRMAN JOHNSON: Okay. Thank you.

And before we proceed, let's just note on the record Board Member Jake Harouny had to leave due to a previous appointment. So we have six members left who will be listening to this matter. So thank you.

Go ahead, Mr. MacDonald.

MR. MacDONALD: Thank you, Mr. Chairman.

Fred MacDonald, Beatty & Wozniak, on behalf of

the applicant, El Paso E&P Company, LP. With me today are Mrs. Marie OKeefe, the senior regulatory analyst for El Paso; Mr. Jim Borer, who's the senior staff geologist; and Mr. Jordan Nelson, who's the senior production engineers. I ask that they be sworn in as witnesses at this time.

CHAIRMAN JOHNSON: Can you do that, please?

MARIE OKEEFE, JIM BORER, JORDAN NELSON, called as a witnesses on behalf of the El Paso, being duly sworn, were examined and testified as follows.

MR. MacDONALD: Mr. Chairman, the resumes of all three witnesses were collectively submitted as Exhibit A in this cause. Based on that exhibit in the interest of brevity and in accordance with the previous practices of the board, I presume the stipulation of the Division and Mrs. Cassler, I request that Messrs. Borer and Nelson be recognized as experts in geology and petroleum engineering, respectively, for purposes this cause.

I would note for the board that Mr. Borer was previously recognized as an expert in geology in Cause No. 139-84 in 2008, which involved the Greater Altamont/Bluebell well authorization.

THE REPORTER: Can you slow down a little?

MR. MacDONALD: Yes.

THE REPORTER: Thank you.

CHAIRMAN JOHNSON: Mr. Alder, any objections?

MR. ALDER: Well, I would --

CHAIRMAN JOHNSON: Or questions?

MR. ALDER: Yes. I don't have objection to Mr. Borer and the other witness.

Couldn't you just provide a little more information? I have not looked at the resumes and it is not the practice of the Division to recognize expertise based solely on resumes and I apologize for not getting you that information.

MR. MacDONALD: If there's no objection to Mr. Borer, then what I will do is I will lay the foundation for Mr. Nelson's expertise at this time for his examination, Mr. Chairman.

MR. ALDER: That'd be great. Thank you.

No objection to Mr. Borer.

CHAIRMAN JOHNSON: At the time of his examination --

MR. MacDONALD: When I examine him --

CHAIRMAN JOHNSON: Okay. All right.

MR. MacDONALD: -- I'll lay the foundation through his resume.

CHAIRMAN JOHNSON: Okay. Ms. Cassler, do you have any objections to Mr. Borer being recognized as an

expert in geology at this time?

MS. HUDSON CASSLER: I do not.

CHAIRMAN JOHNSON: Thank you. The board have any objections or questions?

Then we'll recognize Mr. Borer as an expert and we'll get to Mr. Nelson when he testifies.

MR. MacDONALD: Thank you, Mr. Chairman.

Also, I'd like to confirm that it's acceptable to move for the admission of all of our exhibits at the end of my presentation.

CHAIRMAN JOHNSON: That will be fine.

MR. ALDER: No objection.

MR. MacDONALD: Thank you, Mr. Chairman.

Mr. Chairman, members of the board, El Paso is before you today seeking approval of its application to convert the Lawson 1-21A1 Well located approximately 5.3 miles north of the City of Roosevelt in Duchesne County to a Class II injection well for water disposal.

Injection is proposed for the middle Green River formation, which is over 7,000 feet deeper than any potential underground source of drinking water or USDW. It is geologically confined and most importantly is a previously approved zone by this board of injection for water disposal in this region.

Based on a step rate test, the maximum surface

injection rate without any fracking or damage to the subsurface was found at 1811 psi surface. In accounting for safety factors, El Paso is in agreement with the Division that is requesting 1700 psi injection rate at surface. At that rate we believe the evidence will show that it will not compromise well integrity, or allow migration to potential underground sources of drinking water.

The USDW is defined in regulations at 649-1-1 as a freshwater aquifer or a portion thereof and supplies drinking water for human comsumption or that it contains less than 10,000 TDSes or total dissolved solids.

The UIC permit was originally filed on December 8th, 2009, by El Paso as agent for Homeland Gas and Oil, who was then the operator of the Lawson Well on behalf of Mountain Oil and Gas, Inc., an associated entity, who is the owner of the Lawson Well bore. The permit was amended on January 22nd, 2010, to change the injection depths to approximately 2300 feet deeper than originally asked for. In April of 2010 El Paso purchased the well bore and became the designated operator of the Lawson Well. Thus, it is the current applicant for this UIC permit.

In accordance with the UIC regulations, the

Division proceeded under informal adjudication procedures and sent out a published notice of its intention to consider administrative approval of the permit in December of 2009. Letters of protest and/or inquiry were received and submitted to the Division in response to its publication. They are collectively attached as Exhibit 2 to the Division's notice agency action filed in this cause.

As a consequence of those filings and pursuant to Utah Administrative Code Rule R649-5, subsection 3, subsection 4, the application no longer qualified for approval by the Division alone and was instead required to be set for hearing before this board. As a consequence, the Division filed its notice for agency action in this matter on December 13th, 2010, giving notice of the docketing with and the hearing on this application by the board.

The board has jurisdiction over this matter pursuant to Utah Code Annotated Section 40-6, sub 5, sub 5(a), and Utah Administrative Code Rule R649-5, sub 3, sub 4. The record will reflect that the notice of agency action was provided via U.S. Mail, postage prepaid, to all surface owners within a one-half mile radius of the proposed well for regulation. Notice was also duly published in the Salt Lake Tribune and the

Deseret Morning News on January 3rd, 2011, and in the Uintah Basin Standard on January 4th, 2011.

Two responses to the notice of agency action were timely filed by David and Valerie Cassler and by William Ingles both of whom had previously filed protests with the Division after the initial December 2009 mailing and publication. The Division filed its staff memorandum with the board on January 18th, 2011, stating that it has completed its review of the UIC application and is ready to issue the Class II permit, and presuming that El Paso satisfies its burden of proof through testimony and recommends approval of the application.

As the board is well aware, the criteria for UIC Class II permit approval is set forth in Utah Administrative Code Rule 649-5-2. The testimony and evidence presented today will reflect satisfaction of all such criteria including injection zone confinement and well bore integrity, which would prevent migration in otherwise protected zones of potential drinking water quality.

Exhibit 1 to the Division's notice of agency action is a somewhat incomplete compilation of the permit application. El Paso's exhibits in the whole represent the complete application.

The objections raised by the Casslers and Mr. Ingles concern truck traffic, resulting dust control, and safety issues, seismicity due to injection, injection water makeup and compatibility, and monitoring to prevent contamination of water wells.

It is important to first note that as part of the permit approval process El Paso must monitor the injection well in accordance with the criteria set forth in Utah Administrative Code Rule R649-5-5. In addition, the testimony and evidence today should serve to alleviate to the board's satisfaction or altogether eliminate those concerns and objections.

At this time I'll commence my examination of Mrs. OKeefe.

Mrs. OKeefe, please state your name and address for the record.

MS. OKEEFE: Marie OKeefe, 1099 18th Street, Suite 1900, Denver, Colorado 80202.

MR. MacDONALD: Would you please identify for the board, what is your position with El Paso and how is that relevant to the matter before them today?

MS. OKEEFE: I'm a senior regulatory analyst and my duties include preparing and submitting permits, UIC permits in Greater Altamont/Bluebell Field and I filed the UIC permit at issue today.

MR. MacDONALD: All right. Would you please give the board a brief background about El Paso's corporate status and its bonding status?

MS. OKEEFE: El Paso is a Delaware limited liability partnership with it's principal places of business in Houston, Texas, and Denver, Colorado. It is duly authorized to conduct business in Utah and is fully and appropriately bonded with all federal and State of Utah agencies with respect to oil and gas operations.

MR. MacDONALD: All right. I'll now direct your attention to what has been marked as Exhibit B for purposes of this cause.

For the board members, this is the slide that appears on your computers. It is also projected behind you.

Do you recognize that exhibit, Mrs. OKeefe?

MS. OKEEFE: Yes, I do.

MR. MacDONALD: And who prepared that?

MS. OKEEFE: Personnel within El Paso.

MR. MacDONALD: And was it reviewed by you, as well?

MS. OKEEFE: Yes.

MR. MacDONALD: Okay. Please explain to the board its significance.

MS. OKEEFE: It's just a simple locator plat

map and it gives the board an idea of where the proposed injection well is in relation to the City of Roosevelt and here's the City of Roosevelt and due north, approximately 5.3 miles, is the town of Roosevelt.

MR. MacDONALD: All right. I'm now going to direct your attention to what has been marked as Exhibit C for purposes of this cause.

CHAIRMAN JOHNSON: Mr. MacDonald, I'm sorry. Mrs. OKeefe, you misspoke. 5.3 miles north of Roosevelt is the well location?

THE WITNESS: Right.

CHAIRMAN JOHNSON: Is that correct? Okay. Thank you.

MR. MacDONALD: All right. Again, Mrs. OKeefe, directing your attention to what's been marked as Exhibit C for purposes of this cause, do you recognize this document?

MS. OKEEFE: Yes, I do.

MR. MacDONALD: And was this prepared by you or El Paso personnel under your supervision?

MS. OKEEFE: Yes. Yes, I prepared it.

MR. MacDONALD: Okay. Would you please explain to the board what this is?

MS. OKEEFE: This is a UIC form 1 application for the conversion of the Lawson Well to a Class II

injection well as amended. In the first two pages are the original filings, originally asking for injection between 6,387 feet and 6,699 feet and that was submitted in December of '09, and the last page in the exhibit is the amendment changing the injection zones to 8,642 feet to 8,981 feet, and that was submitted January of 2010.

MR. MacDONALD: Okay. And then if you look closely at it you will see that El Paso signed this as an agent for a certain entity. Would you explain to the board what that's about, as well?

MS. OKEEFE: We -- El Paso was the agent on behalf of Homeland Oil and Gas, which were the -- it was the operator of the Lawson Well at the time.

MR. MacDONALD: All right. Now I'm going to show you what has been marked as Exhibit D for purposes of this cause. Do you recognize these documents?

MS. OKEEFE: Yes, I do.

MR. MacDONALD: And would you please tell the board what they represent, as well?

MS. OKEEFE: It's the official business record of El Paso and the first portion is the assignment of the Lawson Well bore from Mountain Oil and Gas, Inc., then owner of the well and for whom Homeland operated to El Paso.

And the second portion is the related Division

form 9 sundry reflecting the change in operatorship of the Lawson Well from Homeland to El Paso and as a consequence El Paso is now the applicant on this -- on its own -- on its own behalf and not as agent.

MR. MacDONALD: Uh-huh. I'm going to now direct your attention to what has been marked as Exhibit E for purposes of this cause. Again, this is a two-page exhibit and it's shown on the board's computers and, again, is shown behind it.

Did you prepare this document or is it an official business record of El Paso?

MS. OKEEFE: It's an official business record of El Paso but it was prepared by personnel within El Paso.

MR. MacDONALD: Okay. And would you please explain to the board what -- this is a two-page exhibit, what the first page represents?

MS. OKEEFE: The first page is the original plat reflecting surface ownership and producing wells within a half-mile radius of the Lawson Well. It was filed as part of the original UIC application.

And the second --

MR. MacDONALD: And the second page?

MS. OKEEFE: And the second page is an update of that plat through -- to December 11th, 2010.

MR. MacDONALD: Okay. How are these plats compiled?

MS. OKEEFE: It's based on research and search of Land Professionals, Inc., they're contract landmen for El Paso of Duchesne County, circuit's tax rolls and the IHS database, which is -- the database is a public database with subscriptions for oil and gas wells.

MR. MacDONALD: All right. And do these plats reflect any inactive or plugged and abandoned oil and gas wells within the half-mile radius of the Lawson Well?

MS. OKEEFE: No, there are no active wells, plugged and abandoned, active or inactive within a half-mile radius.

MR. MacDONALD: Okay. Would you please point out to the board where the objectioners or the two Respondents, the Ingles and the Casslers, own properties within there?

MS. OKEEFE: Here they are.

MR. MacDONALD: And that would be the Jesse Lawson subdivision; is that correct?

MS. OKEEFE: Correct.

MR. MacDONALD: All right.

MS. OKEEFE: And here's the injection well here.

MR. GILL: Question. At some point, I don't know if you're going to do it now or later, but would you -- at some point would you indicate if there are any residences in that area of where the objections were?
MR. MacDONALD: I don't know if we know that, Mr. Gill. Again, we're going off the tax --
MR. GILL: If you can.
MR. MacDONALD: I'm assuming that either -- Ms. Cassler would maybe know that a little better since she's on the property.
MS. HUDSON CASSLER: Yes, we can help you with that.
MR. GILL: Okay.
MR. MacDONALD: All right. At this point I would like to point out that this plat, this half-mile radius plat is required under the regulations under Utah Administration Code Rule R649-5-2.1.
Now, Ms. OKeefe, now I'm going to direct your attention to what's been marked as Exhibit F for purposes of this cause. Are these documents, are these official business records of El Paso?
MS. OKEEFE: Yes, they are.
MR. MacDONALD: Okay. And could you please explain what they represent?
MS. OKEEFE: They're affidavits signed by El

Paso landman based on the same search utilized in preparation of Exhibit E, with transmittal letters signed by myself advising of the filing of the application and the amendment.
MR. MacDONALD: All right. Again, point out to the board, this is a certification of mailing to the owners within a half-mile radius of the well, which is required under Utah Administrative Code Rule 649-5-2.12.
I will also have the board take judicial notice that these names correspond with those on the original plat in Exhibit E and on the certificate of service on file in this cause with respect to the notice of agency action. The supplemental plat disclosed an additional name also shown on the certificate of service on file in this cause, as well.
MR. MacDONALD: Ms. OKeefe, now I'm going to direct your attention to what has been marked as Exhibit G for purposes of this cause. This is a three-page exhibit. The first two pages are shown, will be shown on your computers and then are also projected behind you.
Would you please explain what this -- how this exhibit was prepared and what it represents?
MS. OKEEFE: Yes. I got the data from the Utah State Engineers's website. And the plat reflects

water wells and water rights' owners within the half-mile radius of the injection well.
MR. MacDONALD: And these parties, again, I would point the judicial notice to the board that these are the parties who are also on the certificate of service and that this plat, although it's not specified clearly in the regulations under R649-5-2.1 as being a requirement for the permit application, this was submitted to the Division as part of the permit application; is that correct, Ms. OKeefe, that it was submitted at the request of the Division?
MS. OKEEFE: Yes.
MR. MacDONALD: All right. All right. Ms. OKeefe, now I'm going to direct your attention to what's been marked as Exhibit H for purposes of this cause. Do you recognize this document?
MS. OKEEFE: Yes, I do.
MR. MacDONALD: Is this an official business record of El Paso?
MS. OKEEFE: Yes, it is.
MR. MacDONALD: All right. Would you please explain what it is?
MS. OKEEFE: It's a notice of original application filing provided by the Division in accordance with the Utah Administrative Code Rule

R6495-3, subsection 2, as received by El Paso.
MR. MacDONALD: Okay. And for the board's reference, we submitted this as an exhibit because it was not attached to the Division's notice of agency action, again, showing compliance with the UIC regulations.
At this point, Mr. Chairman, that concludes my examination of Mrs. OKeefe.
CHAIRMAN JOHNSON: Mr. Alder, do you have questions for Ms. OKeefe?
MR. ALDER: No, I don't. Excuse me. No, we don't.
CHAIRMAN JOHNSON: Ms. Cassler, do you have any questions for Ms. OKeefe?
MS. HUDSON CASSLER: I just wanted to point out that they are both --
MR. GILL: Speak into the microphone, will you, please?
MS. HUDSON CASSLER: I guess you have to be really close, don't you? I just wanted to point out that there are water claims as well as active wells that do not appear on the map that you just saw, including my own and my neighbor's, Mr. Jensen.
CHAIRMAN JOHNSON: You're talking about Exhibit G?

MS. HUDSON CASSLER: Well, one back.
CHAIRMAN JOHNSON: Would you like to ask Ms. OKeefe any questions regarding that?
MS. HUDSON CASSLER: Yes. Why are our water claims and water wells not taken into account?
MS. OKEEFE: I got this information off of the Utah's Division of Water Rights website.
MS. HUDSON CASSLER: Yes. Are you aware that wells that were dug before 1995, that particular website says, May not yet appear. And so it may -- would it not be necessary to actually ascertain the location of active wells and water claims in this area?
MR. MacDONALD: Well, Mr. Chairman, if I may address that from a legal aspect. As I said, it's not -- as I read the rule, it is not specified that water well -- first of all, it doesn't say anything about water rights. It talks about water wells and, again, the -- the regulation does not specify that that has to be part of the permit application. This was submitted, as I believe Mrs. OKeefe testified, at the request of the Division based on a search from the State Engineer's Office.
MS. HUDSON CASSLER: I'd just like to say that I'm sure the board would be interested in the facts on the ground and not necessarily the facts on the website

that all the website says that wells active before 1995 may not appear.
CHAIRMAN JOHNSON: Thank you, Ms. Cassler.
MR. JENSEN: May I ask a question?
CHAIRMAN JOHNSON: Go ahead, Mr. Jensen.
MR. JENSEN: Mr. MacDonald, the reference to water wells, give me that reg again.
MR. MacDONALD: The regulation it would -- it doesn't specify, it's R649-5-2.1. And it states, "A plat showing the location of the injection well all abandoned or active wells within a half-mile radius of the proposed well." And the definition of well generally relates to oil and gas wells under the rules.
MR. JENSEN: Oh, okay. And so how do you -- how do you get that you needed to have the exhibit?
MR. MacDONALD: I think Mrs. OKeefe's testimony was that the Division requested it and so she provided it.
MR. JENSEN: Okay. Thank you.
CHAIRMAN JOHNSON: Does the board have any other questions for Ms. OKeefe?
Okay. Thank you.
MR. MacDONALD: Thank you, Mr. Chairman.
Mr. Borer?
Mr. Borer, would you please state your name

and address for the record?
MR. BORER: James Borer 1099 18th Street, Denver, Colorado 80202.
MR. MacDONALD: All right. What is your current position with El Paso and how does that particularly relate to the matter in front of the board?
MR. BORER: I am a senior staff geologist and have been working the Uintah Basin for 15-odd years and Altamont/Bluebell Fields specifically for about four-and-a-half years.
MR. MacDONALD: And you are the geologist that is supervising this permit application; is that right?
MR. BORER: Yes, I am.
MR. MacDONALD: All right. Mr. Borer, I'm going to show you what now has been marked as Exhibits I through N for purposes of this cause. Do you recognize all these exhibits?
MR. BORER: Yes. I put together all of those exhibits.
MR. MacDONALD: So they were prepared by you?
MR. BORER: Yes, by me.
MR. MacDONALD: All right. I'd like to point out to the board, these exhibits were submitted in satisfaction of the of requirements of Utah Administrative Code Rule R649-5-2.2, 2.9, 2.10, and

2.13.
MR. MacDONALD: Mr. Borer, I'm first going to direct your attention to Exhibit I. Would you please explain to the board what that represents?
MR. BORER: Exhibit I is a summary that was a write-up on a geologic summary that was submitted with our permit and explained the rest of the exhibits that went with the permit.
MR. MacDONALD: So essentially it's the written summary of what you're about to testify to?
MR. BORER: Yes, it is.
MR. MacDONALD: All right. Now, directing your attention to what has been marked as Exhibit J, this is reflected on the board members' computer and also projected behind you.
Would you please explain to the board what this represents?
MR. BORER: This is a structure map on the top of the lower Green River formation. Also referred to as the TGR3 marker, and it is a regional marker that can be correlated throughout the basin and it is perhaps one of the most robust markers. It happens to also be just below the injection zone so it's a very nice structural surface that we can use to understand the structure of the injection horizon.

The pink zigzag line on there is a cross-section that we will discuss later that shows surrounding injec- -- other saltwater injection wells and the inset in the upper right corner shows the local dip direction of the injection strata. And it shows that it dips about 2.4 degrees to the northwest.

MR. MacDONALD: All right. Is there any significance to the TRG3 marker as far as oil and gas production, as well?

MR. BORER: Well, the TRG3 marker is the top of the spacing unit and it also is the top of the main prospective oil and gas horizons below Green River and below that the Wasatch. And it's also interesting in that it is a widespread -- it's the base of a very widespread shale that is, oh, one of the aquitards below the space -- below the injection zone.

MR. MacDONALD: Okay. That would serve as a barrier, then, to potential migration below the injection zone; is that correct?

MR. BORER: Yes, it would.

MR. MacDONALD: Okay. And just for the board's clarification and so everybody understands, there's really no significance to the size of the circles around the injection well in this plat; is that correct?

MR. BORER: Yes, that's just a locator to show the well.

MR. GILL: Question, just a clarification question. I'm looking at the topographic symbols and if I read them right, just below that circle on the map is a topographic line that says 3,700 or 3700.

MR. BORER: It's a subsea datum. Okay. So that is -- that is --

MR. GILL: Okay. I'm trying to correlate that to your, A, application of injection well where it says you're going to be injecting about 6,699 so --

MR. BORER: Right. Well, actually we're injecting deeper, that was the first permit.

MR. JENSEN: It's amended. It's amended.

MR. MacDONALD: It was amended to a deeper zone, Mr. Gill.

MR. BORER: Right, but that is a good question. It's just the function of -- when you do a structural cross-section, you have to take into account the elevations of where the well -- the ground surface elevations and so what this does is this puts the measurements in subsea depth. So that's the amount of depth below zero, below sea level.

MR. GILL: You're going to be about 8,900 feet.

THE WITNESS: It's actually -- can I get my notes? I think it's 83 is the top of the zone. Eighty-three --

MR. QUIGLEY: 8642.

THE WITNESS: Yeah, eighty-six. Sorry. 8642 to 8981, measured depth.

MR. GILL: And is your testimony this is the trapping formation above it or the actual injection?

MR. BORER: No, this is an aquitard below it.

MR. GILL: Okay. Thank you.

MR. QUIGLEY: And what is the name of this aquitard?

MR. BORER: It would be the basal shale of the lower Green River.

MR. QUIGLEY: And its thickness?

MR. BORER: It's approximately a hundred feet thick. And this would protect the oil and gas production zones below.

MR. MacDONALD: All right. Now I direct your attention to what has been marked as Exhibit K. Again, this appears on the board's computer screens and is projected behind it.

Would you please explain to the board the significance of this exhibit?

MR. BORER: This is just a map of the surface

geology and it shows the same cross-section of the surrounding saltwater disposal wells.

And the reason that we like to understand the surface geology is a lot of the very shallow subsurface geology where the water wells are are not very well covered by subsurface logging. And so it's really nice to understand surface geology to help you correlate those most shallow zones.

MR. MacDONALD: And this result was submitted as part of the permitting application; is that right, or the amended permit application?

MR. BORER: Yes, it was.

MR. MacDONALD: Now, directing your attention to what's been marked as Exhibit L for purposes of this cause. Would you please explain to the board what this represents?

MR. BORER: This is a map of the base of the moderately saline groundwater, which is the base of 10,000 TDS water. It was put together in 1987 and by -- I think the survey, it's Howell, et al., 1987. It shows a regional high in the base of the moderately saline groundwater in the area of the injection well and it shows, most importantly, that the proposed injection is over 7,000 feet below the base of the moderately saline groundwater.

MR. MacDONALD: In other words, any potential USDWs?
MR. BORER: Yes.
MR. MacDONALD: Okay. Now I'm going to direct your attention to Exhibits M and N. They, also, they're on your computer screen, they're also -- M is projected, the first page of M is on the board over here and we were hoping maybe that might be a little clearer for what needs to be shown here. And would you please explain to the board --
CHAIRMAN JOHNSON: Mr. Quigley.
MR. QUIGLEY: I'm sorry. I would like to go back to this Exhibit L.
MR. MacDONALD: L? Okay.
MR. QUIGLEY: If I might, please. And I'd like to ask. You said that demonstrates that the injection zone is about 7,000 feet below any producing water wells?
MR. BORER: Not -- well, it's -- it's not under producing water wells. That's how far it is under the base of the moderately saline groundwater, which is something that the government always wants us to report where the injection is versus the base of the moderately saline groundwater.
The injection well -- the water wells,

themselves, I think, I don't know exactly how deep they are, but they're on the order of 500 feet.
MR. QUIGLEY: And they're above this zone?
MR. BORER: And, yes, they're well above in a freshwater zone. That's the base of the moderately saline groundwater is 10,000 TDS but, you know, that's -- that's really not fresh drinking, potable water yet, it's just what might be conceived as some day having agricultural use and the freshwater zones, where the freshwater aquifer is much, much shallower, about 500, 600 feet.
MR. QUIGLEY: Okay.
MR. MacDONALD: Again, Mr. Quigley, the USDW definition is at 10,000 TDS so that baseline correlates with that definition.
MR. QUIGLEY: Yeah. Thank you.
MR. MacDONALD: Okay. Moving back again to Exhibit M, this first page. Would you please explain what to the board it is and, again, if it's easier for you to use the one that's posted on the clipboard, please feel free to do that.
MR. BORER: Can I get up and go to the --
MR. MacDONALD: Yeah, sure. Just speak loudly, please, so everybody can hear you.
MR. BORER: Sure. Try and keep this quick.

This is probably the best view of the stratigraphy to illustrate the bounding basal and upper shales to bound the injection interval.
This first cross-section here, just as a single-well cross-section through the Lawson Well and the markers that are important are this green marker right here is the TGR structure map that you just saw a few exhibits ago. That is the beginning of the petroleum system. There are a little bit of production in gas above the upper Green River but the main plays in the basin are from this green line down, the red line is the top of the Wasatch, which is the primary producing interval.
We are going to inject water above the TRG3. There are several other wells -- wells that are already injecting into this zone and it's a high porosity zone with lots of storage capability right in the middle of Green River.
This TGR3 marker marks the informal lower Green River from the middle Green River.
A blown up on the blue here in this -- in this blue square and these blue little tags here show where we're going to perforate and inject into the well. Then that interval is now blown up and a little bit more to show the perforation zones, the quality of the

sandstones and the porosity, I believe it's 21 different zones will be perfed and the idea is that -- I think those yellow markers where we perf average about 12.4, 12.3 percent porosity.
There's a regional hundred-foot shale we've already discussed that we had the structure map on, that's the TGR3, the basal shale, and then there's a series of shaling intervals above the top that are laterally correlatable shales that are going to impermeable to any flow. There are no faults or -- in this area so we don't think that these shales will be breached in any way. So the zone will be highly contained.
CHAIRMAN JOHNSON: Mr. Quigley.
MR. QUIGLEY: So you say there are no faults but what about regional fracture zones?
MR. BORER: There are -- there's possibly some small-scale fracture zones. All the fractures that I've looked at in the core through the Wasatch and the Green River are what we call bedbound fractures. Where -- when you get into shale lithologies that are ductile and plastic, the fractures stop. It usually takes about a 15-centimeter shale to stop the fractures. Only the brittle rocks, the sandstones and carbonates are fractured generally.

MR. QUIGLEY: Okay.
MR. BORER: Can I go right to this other cross-section?
MR. MacDONALD: Well, let's talk about the second page of Exhibit M. Then we can -- we can go back to that. Okay. The second page of Exhibit M, would you just explain what this is to the board?
MR. BORER: This is just a slightly more simplified view of the previous exhibit and the number one point is this set of arrows on the right-hand side that show the interval to which two other nearby saltwater disposal wells are already injecting into.
MR. MacDONALD: All right. Now --
CHAIRMAN JOHNSON: Mr. Borer, when you say "nearby" how far away are they?
MR. MacDONALD: Oh, if you want, Mr. Chairman, the next exhibit will show that. I'll have him point that out to you.
CHAIRMAN JOHNSON: Thank you.
MR. BORER: In that view we already went through an exhibit that had them.
MR. MacDONALD: Okay. Let's go back and point them out on this one then. This is referring to Exhibit L. Please show the two wells that we talked about that you showed on the second page of Exhibit L.

MR. BORER: It's this well, right here. That's the 3-2A1 and then the 1-5B1 well's right down here so they're about as a crow flies, a mile and a half and one, two, three miles -- no, four miles. And mile and a half and four miles from the injecting well.
MR. MacDONALD: Okay. Now, directing your attention to Exhibit N, which is several pages. Again, would you please advise the board what this represents?
MR. BORER: These are just offset cross-sections an east/west cross-sections and a north/south cross-section that are requested by the DOGM as part of the permitting process. This particular cross-section A is north/south and it's showing the continuity of both the injection horizon and some of the overlying shale-rich intervals that would be the overlying aquitards.
MR. MacDONALD: Okay. Then addressing BB, which you testified is the east/west cross-section?
MR. BORER: Yes, BB is the east/west cross-section and it shows the same. It shows the continuity of both the injection horizon and the over and underlying shales.
MR. MacDONALD: All right. And then directing your attention to the last page of Exhibit M, which is, again, also provided on the clipboard. Do you want to

explain to the board the significance of this?
MR. BORER: Yes, I will. I think this is probably the actual best illustration of really the subsurface geology going up all the way to ground level at the top of these wells. This is a structural section so it's hung in subsea datum and it shows all of the offset saltwater disposal wells and the injection intervals for the said wells.
The big -- the well here, the Lawson 1-21A1, is labeled in the middle and the injection horizon is highlighted by this big red box and this was an analysis that I wanted to see what the regional aquifers and the regional aquitards were and I wanted to see where we had been injecting in the past. It was educating myself on the saltwater disposal in the region.
This blue line here is where you can get the base of the moderately saline groundwater from the Howell map and then using just log analysis you can also put in certain wells -- I don't have well logs for the Lawson Well, but in offset wells, I can do some analysis and project it in. So the base of the moderately saline groundwater is probably somewhere in this horizon.
We took the lowest depth because that's the water you want to protect above that and I just wanted to illustrate that we're over 7,000 feet below that.

And then you can see this is the two wells that we were -- talked about before that were also being injected into that horizon. There are some wells that were injected up much higher in the upper Uintah and some other wells that are being injected into the upper Green River.
MR. MacDONALD: Again, for the board's reference, I've got Exhibit K, this shows that cross-section CC, which os represented here on that last page of Exhibit N, just for your reference.
Mr. Borer, then, to summarize, is it there are several aquitards, then, between, as reflected on these geologic exhibits, between the proposed injection zone and the base of the potential USDWs; is that correct?
MR. BORER: Absolutely. The Green River formation is actually known as the Green River shale and there is 3,000 feet of shale above us that are in the Green River and then there's a sandstone package in the lower Uintah but above that there's another, oh, I think, 1800-foot package of Uintah, very fine grain floodstone -- floodplain mudstones and so there's at least three major intervals of shale between the aquifer and the base of the moderately saline groundwater and the nearby freshwater wells.
MR. MacDONALD: And, also, as part of the

study you have also stated that there is other injection wells in this region that inject in the zones that are above the zones that you're proposing for injection, as well; is that right?

MR. BORER: Yes, there are.

MR. MacDONALD: All right. Now, is there any significance to controlling water flows in a deeper injection horizon rather than a shallower?

MR. BORER: Oh, absolutely. We, as producers of oil and gas in the basin, we have a lot easier time with well-control issues when we're drilling -- we take in a lot of flows from these saltwater flows as we're drilling through them and when the injection perfs are deeper, it's a lot easier to control those flows while you're drilling a well.

MR. MacDONALD: I'd just like to point out to the board these geologic exhibits are required under Utah Administrative Code Rules R649-5-2.2 and 2.10.

All right. Mr. Borer, in your expert opinion, are the proposed zones for injection geologically adequate for injection at the proposed rates?

MR. BORER: Yes.

MR. MacDONALD: And in your expert opinion are the proposed injection zones sufficiently geologically confined to prevent pollution and damage to any USDW?

MR. BORER: Yes.

MR. MacDONALD: All right. I'd like to address now a little bit more on water compatibility, monitoring, and some other issues.

Again, can you identify for the board, what is the status of saltwater injection in this region, in other words, how many wells are being operated and how many in particular does El Paso operate already?

MR. BORER: Well, I think it's important to note that the area has many injection wells. I think there's 12 total. Water Disposal, Inc. operates two commercial wells nearby. Devon operates four, and El Paso operates 11 wells in the field.

El Paso's an experienced injection operator and we have no serious incidents with our injection to date.

MR. MacDONALD: All right. And as far as the need for this well, would you please explain to the board why El Paso needs it and will it be used for any commercial purposes?

MR. BORER: Oh, no. The -- the proposed water to be injected will be from El Paso-operated wells in the area only. It's not going to be a commercial facility. It's going to serve El Paso's field operations only.

MR. MacDONALD: All right. I'm going to direct your attention to what's been marked as Exhibit

Q. Do you recognize this exhibit?

MR. BORER: Yes, I prepared that.

MR. MacDONALD: You prepared the first couple of pages and the summary; is that correct?

MR. BORER: Yes, the summary and then the other data was provided to me by service companies, PJ Services and Multi-Chem.

MR. MacDONALD: And those are laboratories that were contracted by El Paso?

MR. BORER: Yes.

MR. MacDONALD: Okay. Could you please explain to the board what Exhibit Q represents and, also, for the board's reference, Exhibit Q is also attached to the agency notice of agency action.

MR. BORER: It reflects a chemical analysis of produced water to be injected from the nine El Paso wells and compatibility results for the formation fluency encountered in the Lawson Well.

This is also a chemical analysis from a swab test of the proposed injection zone and that's where we get the chemical compatibility analysis, between the produced water and the swab test water.

MR. MacDONALD: And what were the bottom-line

results from this analysis?

MR. BORER: Well, TDSes ranged from 6,633 to 9,380 with a pH range from 7.6 to 7.9 for the proposed injection water and a commingled sample has a TDS of 8,456 milligrams per liter. The representative swab sample from the formation had a TDS of 26,360 and showing that it's well above the 10,000 PP -- TDS that you would need for an aquifer exemption.

MR. MacDONALD: And, again, just for clarification, that is the swab that was taken from the Lawson Well in the middle Green River formation; is that correct?

MR. BORER: Yes.

MR. MacDONALD: All right. Please go ahead. I'm sorry.

MR. BORER: And compatibility tests between these two samples, the first sample being a commingle -- physically commingled sample of all the nine wells and then the formation water shows that there's not significant incompatibility and from our vendors we got some recommendations on chemical treatments to reduce scaling and, also, we were going to consider corrosion and bacteria control based on those results.

MR. MacDONALD: Again, this exhibit is required under Utah Administrative Code Rule R649-5-2.6

and 2.7.
Okay. Let's address monitoring a little bit. What, first of all, is there any regulatory requirements upon El Paso presuming the permit is injected for monitoring?
MR. BORER: Well, as a protection for all parties and presuming the owners' consent and allow us to, El Paso will take a baseline sample from each water well within a half-mile radius of the Lawson Well before the injection operators commence.
But we have to already monitor the integrity of the well according to code.
MR. MacDONALD: And chemical sampling; is that correct?
MR. BORER: Yes.
MR. MacDONALD: The regulatory site for the board's reference is R649-5-5, subsection 3.4.
Mr. Ingles, in his response, expressed concerns over increased seismic activity due to injection. Is El Paso aware of any seismic anomalies that have resulted from its other injection well operations?
MR. BORER: No.
MR. MacDONALD: All right. In your expert opinion is there any geologic support that seismic

activity might occur at the injection rate proposed for this one?
MR. BORER: Not if we inject below the pressure grade.
MR. MacDONALD: Mr. Chairman, that concludes my examination of Mr. Borer.
CHAIRMAN JOHNSON: Mr. Alder, do you have questions for Mr. Borer?
MR. ALDER: Yes, thank you.
Mr. Borer, just more a question of enlightenment for the board and the Division. What was the reason for El Paso choosing a deeper injection horizon in the revised application, if you know? Do you know?
MR. BORER: I absolutely know. I was -- I was the person who decided that we should do that and I -- it's in the write-up and if you don't mind me just reading right from that as soon as I find it.
MR. MacDONALD: This is in Exhibit I.
MR. BORER: "Originally, in an attempt to protect potential middle Green River oil plays, similar injections over were considered for the" -- oh, hang on. Sorry.
Okay. The Victor Brown Well on the far left of the saltwater disposal section was PA'd -- P and A'd

in October 1990 and the Davis 1-33A1E Well, which was a Flying J well and is now an El Paso well which is on the far right-hand side of the section and was recently permitted as a Class II injection well by -- by Flying J, the -- they injected in the upper Green River.
And originally we thought that that would be a good target because we were playing a -- a heavy oil sand just above the TGR3 marker and so we were trying to protect our own production from having those -- the -- the lower injection intervals and as we -- we found out through testing that well that it wasn't economic and we've since P and A'd that production test.
And looking at the quality of injection horizons, they -- they have more storage and take -- take more fluids. And then, also, that upper zone, we were very concerned about protecting upper Green River gas production, which if you have water break through in a gas well and -- and the closest production in upper Green River gas is about two-and-a-half miles to the west.
So all those things considered, the quality of the rock and the precedence of the upper Green River gas well over this noncommercial heavy oil play and the quality of the injection made us want to move down and -- and in our drilling the department also concurred

with that saying that it was a lot easier to control saltwater disposal, well flows when you're drilling through the zone if the perfs are actually deeper.
So those -- those would be the reasons.
MR. ALDER: Was that an issue that the Division raised with you, also?
MR. BORER: Oh, it was -- it was discussed a month -- the two. I think we kind of -- we concurred on that together.
MR. ALDER: Okay. Thank you. No other questions.
CHAIRMAN JOHNSON: Ms. Cassler, do you have any questions for Mr. Borer?
MS. HUDSON CASSLER: Yes, just three questions that bear upon his expertise in the matter which we admit is greater than our own.
Number one, if for any reason the formation into which the water is being pushed through the perforation, if for any reason that formation were to be unduly constricted for whatever reason, would the operating pressure of the Lawson Well rise? That's my first question.
MR. BORER: Yes. If -- if the perfs were plugged off or the formation damaged or the formation became overinjected, say, yes, the pressure would rise

and that's why we put limits on our injection pressure.
MS. HUDSON CASSLER: Good. My second question is when I was looking at your analysis of the compatibility, with the water compatibility on your samples, let me just ask, I counted 13 substances that were tested for, is that correct, approximately 13 the majority of which are minerals?
MR. BORER: Yes.
MS. HUDSON CASSLER: So there was no testing for diesel organics or volatile organic chemicals or drilling chemicals in these samples?
MR. BORER: No.
MS. HUDSON CASSLER: Okay. My last question, just, you mentioned that there may be a need for bacterial control. Would that indicate that a biocide would be used in a well?
MR. BORER: There's been no decisions on that and I am not an expert to testify on biocides but it's just -- if you don't want the well to develop bacteria and -- and start generating hydrogen sulfide, there are controls that you can do and I -- I can't say that I'm an expert on what those controls are. You may actually want to talk to the next witness about that particular.
MS. HUDSON CASSLER: Okay.
CHAIRMAN JOHNSON: Any questions from the

board?
Mr. Quigley.
MR. QUIGLEY: Yes. Let me see if I can find that. You -- you talked about monitoring. And we talked about there's no faulting or fracturing in the area. My first question is when was the well originally drilled?
MR. MacDONALD: This is this Exhibit I, as well.
MR. BORER: The wells first produced in 1983, and has a cumulative production of 21,000 barrels and 11 MMCFs from the Wasatch and lower Green River.
MR. QUIGLEY: Is there --
MR. BORER: It was originally shut in 1987 and we tried to -- the operator tried to bring it back on to production in 1988 and 2000 by adding perfs and stimulating but it -- it was abandoned.
MR. QUIGLEY: Okay. So having this well, then, is part of this analysis to make this an underground injection well, has there been any testing on the casing?
MR. BORER: Yes.
MR. MacDONALD: The next witness will testify to that.
MR. QUIGLEY: Okay. Good. So then my next

question on monitoring then, once I got the idea that the casing was good, is there -- as you're going through -- and this is just because I'm not -- don't know a lot about this but as you're injecting fluids underground, you do a test to determine what's the maximum allowable pressure? Is there ways you have adjacent, and admitted they're up to four miles away, you have adjacent injection wells in the same horizon, is there conditions under which there can be induced fracturing at those pressures and if there was, would you know about that through your monitoring program in the well?
MR. BORER: I think that probably should also be answered by our next witness.
MR. QUIGLEY: Okay. Thank you.
MR. BORER: He's an engineer.
MS. HUDSON CASSLER: Mr. Chairman, could I just raise a procedural issue?
CHAIRMAN JOHNSON: Go ahead, Ms. Cassler.
MS. HUDSON CASSLER: We would really like to reserve 40 minutes for our statements and I notice that it's already 4:15. We would have -- I guess we'd have to continue if we couldn't get to our statement? We've been here since 3:15.
CHAIRMAN JOHNSON: We have set no end time

tonight.
MS. HUDSON CASSLER: Okay. So there's no end time.
CHAIRMAN JOHNSON: No, there's not.
MS. HUDSON CASSLER: We can just continue past 5.
CHAIRMAN JOHNSON: We've done that plenty of times.
MS. HUDSON CASSLER: Okay.
CHAIRMAN JOHNSON: 5 o'clock is not a barrier to this board.
MR. MacDONALD: It's usually a starting point sometimes.
CHAIRMAN JOHNSON: Okay. Mr. MacDonald, do you have any redirect for Mr. Borer?
MR. MacDONALD: No, I don't, Mr. Chairman.
CHAIRMAN JOHNSON: Thank you, Mr. Borer.
MR. BORER: Thank you.
MR. MacDONALD: Mr. Nelson?
Mr. Nelson, would you please state your name and address for the record?
MR. NELSON: My name is Jordan Nelson. Address 1099 18th Street, Suite 1900, Denver, Colorado 80202.
MR. MacDONALD: And what is your current

position with El Paso and how does that relate to today's matter before the board?

MR. NELSON: I am the senior production engineer primarily assigned to the greater Bluebell/Altamont area. And --

MR. MacDONALD: Are you involved with this permit process, then, as well as --

MR. NELSON: Yeah. I'm --

MR. MacDONALD: -- being the engineer --

MR. NELSON: Yes, I'm an engineer supervisoring -- supervising this application.

MR. MacDONALD: Okay. The Division requested a little more foundation on your expertise as a petroleum engineer. Would you please advise the board of your education background and your degrees?

MR. NELSON: Yes. I have a Bachelor of Science degree from the University of Utah in mechanical engineering. I have worked in the oil and gas industry since 2005, in 2005 as an intern doing mostly environment work with spill prevention, control, and countermeasures plans.

I was hired on by Flying J Oil and Gas out of north Salt Lake, Utah, in 2006 working with the Bluebell/Altamont field as a production general petroleum engineer. I have experience in UIC

applications and UIC wells -- or, excuse me, saltwater disposal wells in both Utah and Montana. I have worked with El Paso since 2010 when they purchased Flying J Oil and Gas's oil assets.

MR. MacDONALD: All right. And do you belong to any professional memberships relating to petroleum engineering, as well?

MR. NELSON: Yes. I am a member of the Society of Petroleum Engineers and have been since 2005.

MR. MacDONALD: All right. Is there anything, other information you'd like to pass on to the board regarding your petroleum engineering exper- -- or experiences? Coursework?

MR. NELSON: Yeah, I've been to several seminars and courses pertaining to fractures. I also work as a completions engineer so I'm heavily involved in hydraulic loop fracturing wells for production. Also, I was a member of the SP section here in Salt Lake City, a member of the board for two years.

MR. MacDONALD: And, again, since your -- you started your career, you've been primarily focused on greater Altamont/Bluebell field, too; is that correct?

MR. NELSON: Yes, my entire career has been there.

MR. MacDONALD: Mr. Chairman, at this point,

with that foundation, I would like to qualify Mr. Nelson as an expert, petroleum engineer expert in this cause.

MR. ALDER: Thank you, Mr. MacDonald and Mr. Nelson. The Division has no objections.

CHAIRMAN JOHNSON: Ms. Cassler?

MS. HUDSON CASSLER: No objection.

CHAIRMAN JOHNSON: Does the board have any objections or question for Mr. Nelson?

Okay. Then we'll recognize him as an expert for the purposes of the hearing.

MR. MacDONALD: Thank you, Mr. Chairman.

Mr. Nelson, I'm now going to direct your attention to what has been marked as Exhibits O, P, and R for purposes of this cause. Do you recognize all those documents?

MR. NELSON: Yes, I do.

MR. MacDONALD: Were they prepared by you or El Paso personnel with your review?

MR. NELSON: Yes.

MR. MacDONALD: All right. Let's turn your attention, first, to Exhibit O. Would you please explain to the board what this represents?

MR. NELSON: Exhibit O is a notice of intent sundry that is submitted to DOGM and it is a proposed plan of conversion for the Lawson saltwater disposal

well.

And the key thing to note there is the plan of plugging back existing perforations and running tubing on a packer to isolate the perforations for injection.

MR. MacDONALD: All right. And, again, for the board's reference, this is required under Utah Administrative Code Rule R649-5-245.

Was anything else filed with the Division with respect to this plan after you worked on the well?

MR. NELSON: Yes. This fall subsequent sundry was submitted to DOGM showing the data of the implementation of the plan in this exhibit.

MR. MacDONALD: All right. So at this point, then, the well is sufficiently blocked off and packed to isolate the injection zone; is that correct?

MR. NELSON: Yes.

MR. MacDONALD: Okay. Now I'm going to direct your attention to Exhibit P. Could you please explain to the board what this represents?

MR. NELSON: Yes. This exhibit is the cement bond log that was run in 2010 during the conversion and testing phase.

MR. MacDONALD: And what does -- what does the bond log reflect?

MR. NELSON: The bond log is a -- is a log we

run to determine what the cement bond is behind the casing. In this case it's a 7-inch intermediate string that we're logging. And the important thing is this bond log in 2010 correlates with the original bond log that was run on the well in 1983 and it shows isolation above the top perforation of approximately 2,742 feet of a cement sheath behind the casing.

MR. MacDONALD: And that reflects appropriate prevention of migration up the well bore; is that correct?

MR. NELSON: Yes, it does.

MR. MacDONALD: All right. Pointing out to the board, again, this is required under Utah Administrative Code Rule R649-5-2.3. I would also have the board take judicial notice of the other logs for the Lawson Well that are on file with the Division per Utah Administrative Code Rule R649-5-5.4.

MR. ALDER: No objection.

MR. MacDONALD: All right. Mr. Nelson, now directing -- I'm sorry.

MR. JENSEN: May I ask --

MR. MacDONALD: Certainly.

MR. JENSEN: I understand the request to take judicial notice but what does that mean to us?

MR. MacDONALD: Well, the regulation requires

that certain logs be filed. We believe that the logs that we've shown through the exhibits meet all those requirements, but I also want the board to take judicial notice of, for example, the original cement bond log that's on file with the Division that was filed in 1983. This is a more recent one.

MR. JENSEN: So if we could make our finding based on our exhibits without the reference.

MR. MacDONALD: That would be my -- that's what I'm suggesting but I want the board to be aware that you have the right to take judicial notice of all those logs and I'm sure you don't want to be burdened with all those things that are a mile and a half long.

MR. JENSEN: Thank you.

CHAIRMAN JOHNSON: Mr. Quigley.

MR. QUIGLEY: This cement bond log, you have to excuse me, this is the first one I've looked at. So what I'm asking you is would you tell me what this says just briefly?

MR. NELSON: Yeah. So the first track on our left is the gamma-ray log and we use that for correlation. The track you're -- you want to pay attention to is the middle one, where it's an amplitude. So the cement bond log is an acoustic tool that can determine the bond based on the -- the data that it's

processing.

And the far left is a hundred percent bond and the far right would basically be -- be no cement. And so as you track that line going down you can see that the majority of that line is on the left side showing adequate bond, greater than 90 percent most the time, which is -- which is enough to show hydraulic isolation.

MR. QUIGLEY: Okay.

MR. MacDONALD: Now, I'd like to direct your attention to Exhibit R. Do you recognize that document?

MR. NELSON: Yes, I do.

MR. MacDONALD: Okay. And did you prepare the first two-page summary of that or did you prepare the whole document?

MR. NELSON: I provided the data for the document, yes.

MR. MacDONALD: Okay. And would you please explain to the board what it represents?

MR. NELSON: It's a summary of the step rate test that was done on the well. And the step rate test is a test we do to determine the maximum injection rates to prevent fracturing through the -- through the rock that we're injecting into.

MR. MacDONALD: And what were the results of this test?

MR. NELSON: The results of the test supported a maximum injection rate of 1,811 psi. We have since discussed with the Division and they have promoted a safety factor, it's a normal course of action for them to have a safety factor, and so the maximum injection rate at surface that we will be requesting will be lowered to a 1,700 psi.

MR. MacDONALD: And that's the surface rate injection; is that correct?

MR. NELSON: Yes.

MR. MacDONALD: And that's a rate, again, that shows there would not be any fracturing at those rates and that would not cause any potential damage to the zone for upward migration; is that correct?

MR. NELSON: Yes.

MR. MacDONALD: All right. Again, for the board's reference, that is required under Utah Administrative Code Rule R649-2.8 and 2.9.

Okay. I'd like to identify one other thing.

MR. JENSEN: Excuse me, Fred. Where do you get -- you just talked about the 1,700. That's after discussion with the Division. So is that in this doc-- is that referenced in this document or is that --

MR. MacDONALD: Mr. -- yeah, Mr. Nelson -- no, that's not referenced. Mr. Nelson's testimony and

what's referred to in this document it shows that there were no fractures at 1811 psi.

MR. JENSEN: Okay.

MR. MacDONALD: The Division as part of its practice and approval has a built-in kind of safety factor and they suggested that 1700 psi just to make sure would be -- it would be what they would recommend and El Paso has agreed to that.

MR. JENSEN: And is that somewhere in the documents or is that --

MR. MacDONALD: That is nowhere in the documents.

MR. JENSEN: -- that proposed to be in our order?

MR. MacDONALD: That would be in your order as part of the permit approval.

MR. JENSEN: Thank you.

MR. MacDONALD: But the idea here was the step test rate test -- excuse me, the step rate test showed that there was no fractures at 1811 psi surface.

I do want to point out to the board that there's another criteria under Rule 649-5-211, that the application is to include a review of mechanical conditions of all wells within a half-mile radius to assure no condition existed for upward migration.

Mr. Nelson, that was not filed as part of this application. Could you explain to the board why?

MR. NELSON: Because there were no active or P and A'd wells within a half-mile radius.

MR. MacDONALD: So there's no need to file that as far as well-bore integrity since there's no wells within that half-mile radius that deep?

MR. NELSON: No need to file it, yes.

MR. MacDONALD: All right. In your expert opinion, then, does the Lawson Well have sufficient integrity to handle injection at a maximum surface rate of 1700 psi and prevent migration?

MR. NELSON: Yes.

MR. MacDONALD: In your expert opinion will a maximum surface injection rate of 1700 psi not initiate fractures of the confined strata?

MR. NELSON: Yes.

MR. MacDONALD: And in your expert opinion, is the Lawson Well in sufficient condition and will it be operated in a manner that will prevent pollution and damage to any potential USDW and confine injections to the interval approved?

MR. NELSON: Yes.

MR. MacDONALD: Now, there have been several objections regarding truck -- truck traffic and safety

and what El Paso proposes to do with respect to getting the injection water to the well site. Could you please address those to the board?

MR. NELSON: Yes. El Paso intends to install a saltwater disposal pipeline to this injection well, it will be connected to the existing saltwater disposal system of El Paso and we anticipate this construction will be finished by year end 2011.

And this is the most cost-effective way for El Paso to transport saltwater dis- -- or saltwater to this well site. And this should definitely lower the amount of saltwater hauling trucks that will be physically driving to the site.

MR. MacDONALD: All right. Will you please identify for the board, then, what is the anticipated truckloads until that pipeline is in place and then is there any additional trucking that may be needed even once the pipeline is in place?

MR. NELSON: Okay. Estimating a generous injection rate, there would be estimated 15 water truckloads that would be driving to the site each day. Even after the pipeline is installed there will be some trucks visiting the site on an as-needed basis plus additional smaller vehicles for service and then monitoring.

MR. MacDONALD: But that should be significantly reduced from the amount that you would need till the pipeline is in place; is that correct?

MR. NELSON: Yes.

MR. MacDONALD: All right. And what will be, like, the operation hours and what other safety measures do you have -- will El Paso implement as far as this trucking goes?

MR. NELSON: Our water trucks normally run from 7 a.m. to 5 p.m. except during extreme conditions or when nearby new wells are being flowed back, which require a higher number of -- of truckloads for a temporary period.

Most of the access is on public county roads. We have discussed as far as a safety concern, installing a gate, where the private roads meets the county road and that is something that El Paso is willing to do depending on the surface owners' suggestions.

MR. MacDONALD: What about dust suppression along the nonpaved portions?

MR. NELSON: The entire private road from the county road to the saltwater disposal facility, the road will be graveled, which will remove the -- the dust being thrown out into the air.

MR. MacDONALD: Okay. What -- as far as the

site goes, what kind of facilities will be on there and what kind of prevention for noise or omissions will be a part of those facilities?

MR. NELSON: On site there will be a tank storage battery where trucks can unload their saltwater disposal -- or their saltwater. Those tanks will be fed into an injection pump, which will be enclosed in a housing unit and a flow line to the wellhead.

MR. MacDONALD: And will the noise with the housing, the injection pump, how will that are relate to, say, normal oil and gas operations?

MR. NELSON: It should be less than even a normal oil and gas producer.

MR. MacDONALD: All right. And as far as the pipeline, itself, is it -- is it going to be buried? What other -- what other measures do you have in place for that?

MR. NELSON: The pipeline will be built to API standards, it's a buried pipeline. It will be made pickable so that future mechanical integrity testing can be done on the line and it will be maintained to reduce or remove problems with spills or other environmental concerns.

MR. MacDONALD: All right. And as far as El Paso goes or El Paso's been advised, is there any

culinary water system that's supposed to be installed in this area soon?

MR. NELSON: Yes. Our construction supervisor who is -- who works out of our Altamont field office has advised us that a public culinary system may be available in the future and will unlikely -- in unlikely worst-case scenario, may mitigate the damages caused by any damage to water wells.

MR. MacDONALD: If that was the worst-case scenario; is that correct?

MR. NELSON: Yes.

MR. MacDONALD: All right. Mr. Chairman, that conclude my examination of Mr. Nelson.

CHAIRMAN JOHNSON: Mr. Alder, any questions for Mr. Nelson?

MR. ALDER: The Division has no questions of Mr. Nelson?

CHAIRMAN JOHNSON: Ms. Cassler.

MS. HUDSON CASSLER: Yes, sir. We have five questions for the expert.

Number one, we could not find the 1938 cement bond log in our papers. Is there some reason that it was not sent out to the homeowners?

MR. NELSON: It is on file with -- with DOGM and a public file is accessible to everybody. You can

load it on the website or here in the office.

MS. HUDSON CASSLER: Okay. On form 9, which is the revision to the filing that you have made, among other things, you mentioned that you're going to be doing a squeeze job. Would you please tell us why you felt that a squeeze job was necessary?

MR. NELSON: Yes. And that goes to the question that was asked about the casing integrity.

As was said, this well was drilled and encased in 1983. At that time when they cemented the intermediate casing, they cemented a few thousand feet above the production interval, which Mr. Borer discussed was the TGR3 marker. So in this case the well was cemented to 5,900 feet based on the original bond log in 1983.

Due to the age of the casing, every time we enter well bores, especially in this case, we are required to prove the mechanical integrity of that casing. So we plugged back the original perforations and performed a pressure test and based on those pressure tests we do cement squeezes to -- to mitigate any holes that are in the casing to prevent fluids from migrating up the hole.

MS. HUDSON CASSLER: Just one clarification. So the results of the pressure test led you to do the

squeeze job.

MR. NELSON: Yes, we did a pressure test of 1,000 psi, which showed there was a casing leak. We isolated that casing leak, cement squeezed it, and have since pressure tested the casing successfully to 1,000 psi.

And of note during that pressure squeeze we monitored the surface pressure behind that casing and it showed zero pressure change showing that even the cement-squeeze pressure was not migrating up -- up the backside of that casing.

MS. HUDSON CASSLER: So, I'm sorry. Did you say it was tested to 1,000 psi?

MR. NELSON: The casing is, yes. And that is a regulatory recommended requirement.

MS. HUDSON CASSLER: And you're pumping at 1700 psi? I'm sorry, I just wanted to clarify.

MR. NELSON: Yes. And that is because we run a set -- a tubing string of two-and-seven-eighths-inch tubing that is pressure tested to 10,000 psi when it's run in the hole. And it is set on a packer and that packer is also tested to -- to that rating and so you're only -- your only casing that is seeing that pressure is the injection interval.

MS. HUDSON CASSLER: Okay. I have a few more

questions.
Now, you mentioned that the pump for the pipeline will be located there at the well; is that correct?
MR. NELSON: Yes.
MS. HUDSON CASSLER: And the housing structure, will that be configured to -- are you looking to maximize soundproofness or have you examined the issue of soundproofness with regard to that housing?
MR. NELSON: The -- the pumps that run are actually quite quiet. They do produce a little bit of sound but in the housing you wouldn't -- you wouldn't even notice it a few hundred feet away.
MS. HUDSON CASSLER: If you were outside, what would the decibels be for that?
MR. NELSON: I do not have that information.
MS. HUDSON CASSLER: Okay. So -- all right. So that might be a pertinent piece of information, wouldn't it?
What is the route of the pipeline? We saw nothing in the documentation about the route of the pipeline to the well.
MR. NELSON: Yes. We have a right-of-way and I cannot testify to that, that's a land issue. I don't know if we can --

MS. HUDSON CASSLER: It would be nice to know -- I'm sure the homeowners would appreciate knowing what the proposed route of the pipeline would be.
MR. MacDONALD: Well, and, again, the El Paso people contact you but the pipeline route is really irrelevant for purposes of this hearing. But -- but I'm sure that they'd be willing to talk to you about that.
MS. HUDSON CASSLER: I'm sure that the board is interested in numerous aspects of this well.
Now, the tanks were not mentioned in your application, the storage tanks that will be at the well. Is there some reason for this oversight?
MR. NELSON: The surface facility design is not really covered by the UIC conversion sundries that were submitted.
MS. HUDSON CASSLER: So it was only in this hearing that that we even knew that there would be storage tanks, is that how it worked?
MR. MacDONALD: It's not part of the regulatory requirements to address that.
MS. HUDSON CASSLER: Uh-huh. But it is interesting.
Thank you.
CHAIRMAN JOHNSON: Does the board have any questions for Mr. Nelson?

MR. QUIGLEY: Yeah.
CHAIRMAN JOHNSON: Mr. Quigley.
MR. QUIGLEY: And so I have a couple of questions here. So you testified that you did a mechanical testing on the casing but you're putting an inner tubing in down to the packer and the fluid will all travel through that inner tube and then go out into the casing where it's perforated?
MR. NELSON: Yes. And so the -- the annulus between the tubing and the casing should have zero -- will have hydrostatic pressure, it'll be filled with a corrosion inhibitor fluid and that annulus will be monitored so that if any pressure is seen, we will know that there is issues.
MR. QUIGLEY: Very good. And then my next question goes to monitoring again. And my question is with multiple injectors in the area, and I realize that they're up to four miles away, something like that, is there a monitoring procedure that would identify any fracturing starting to occur if, in fact, the step rate test wasn't correct orif the well starts building pressure, you would know that, correct?
MR. NELSON: Yes. So -- so we have pressure monitoring and rate monitoring on a daily basis and you would -- you would see.

MR. QUIGLEY: So you'd see a drop in pressure if fractures started to develop?
MR. NELSON: You possibly could, yes.
MR. QUIGLEY: And so, in fact, the issue of developing fractures in the formation that could lead to migration of the fluid outside of the intended zone, is it or isn't it monitored?
MR. NELSON: There -- there -- the monitoring is on the -- the pressures that we're able to inject based on physical testing that shows what the closure stress is of the rock. And so if we inject below that closure stress or what the minimum pressure is to hold the fracture open, if we inject below that, we do not foresee a possible scenario where fractures will initiate if we're injecting below that pressure.
MR. QUIGLEY: Okay. And that's the standard industry practice?
MR. NELSON: Yes. And that's backed by UPA regulation and State regulation.
MR. QUIGLEY: Proven technology. That's proven technology.
THE WITNESS: It is to the best of the technology that we have.
MR. QUIGLEY: Okay. Thank you.
CHAIRMAN JOHNSON: Further questions?

Mr. MacDonald, any redirect for Mr. Nelson?
MR. MacDONALD: No, Mr. Chairman.
But I would, again, like to point out that also with respect to the well-bore integrity there are regulatory requirements for continuing monitoring, which are, again, found at 649-5-5. So once the injection starts, they have regulatory requirements for monitoring the injection rates and such.
MR. QUIGLEY: Okay.
MR. MacDONALD: Mr. Chairman, that concludes our presentation in chief.
I do have a couple of cleanup matters. I need to move for admission of Exhibits A through R inclusive.
CHAIRMAN JOHNSON: Mr. Alder, any objections.
MR. ALDER: No objection.
CHAIRMAN JOHNSON: Ms. Cassler.
MS. HUDSON CASSLER: I'm fine.
CHAIRMAN JOHNSON: Okay.
MS. HUDSON CASSLER: Is it -- I'm sorry, is it my turn?
CHAIRMAN JOHNSON: No. No. But you have no objections to any of the --
MS. HUDSON CASSLER: No.
CHAIRMAN JOHNSON: -- exhibits being entered?
MS. HUDSON CASSLER: No objection.

CHAIRMAN JOHNSON: Does the board have any objections or questions on any of the --
CHAIRMAN JOHNSON: Okay. So, then, Exhibits A through R will be entered.
(El Paso Exhibits A through R were received into evidence.)
MR. MacDONALD: Thank you, Mr. Chairman.
I would also like to reserve time for rebuttal after the Division's and Ms. Cassler's presentation in chief.
CHAIRMAN JOHNSON: Yes.
MR. MacDONALD: All right. Thank you.
CHAIRMAN JOHNSON: Mr. Alder, before we start with you, I apologize, but I need to take a break myself. Must be something in the water today. So can we take like a five-minute break?
MR. ALDER: That would be great. Thank you.
CHAIRMAN JOHNSON: Thank you.
(Recess taken.)
CHAIRMAN JOHNSON: Let's go back on the record.
Mr. Alder, let's go to you.
MR. ALDER: Thank you, Mr. Chairman. The Division had responsibility to review this injection well application, and has a little more information than

usual board matters which we'd like to present and we have two exhibits that have been provided on your dais there for you, right in front.
There you go.
We will be referring to -- the two witnesses that the Division will call are Mark Reinbold and Brad Hill and I'd ask that they stand and be sworn.
MARK REINBOLD, BRAD HILL,
called as a witnesses on behalf of the Division, being duly sworn, were examined and testified as follows:
MR. REINBOLD: Yes, I do.
MR. HILL: Yes.
MR. ALDER: All right. I would first call Mr. Mark Reinbold.
Would you state your name and your position with the Division for the record?
MR. REINBOLD: Mark Reinbold. Mark Reinbold. I an am environmental scientist and geologist by training.
MR. ALDER: And how long have you worked at the Division?
MR. REINBOLD: Two years today.
MR. ALDER: Congratulations. And what are your responsibilities at the Division?
MR. REINBOLD: Mostly I review UIC

applications primarily from the Monument Butte area as I wait and determine when -- I deal with conversion letters and all the requirements and the final approval letters.
MR. ALDER: So you're assigned to a specific area that includes the area where this well is?
MR. REINBOLD: I don't work exclusively in Monument Butte but most everything is in the Uintah Basin in that general area.
MR. ALDER: Before we continue, would you provide a brief summary to the board of your educational background and your professional experience?
MR. REINBOLD: I have a bachelor's degree from the University of Illinois. I began my career at the Illinois State Geological Survey, worked there for about four years in stratigraphy, oil and gas-related things. Big project I was involved in was the Devonian black shale stratigraphy which was part of the so-called Eastern gas shales project.
From there I went to Atlantic Richfield in Denver. I worked there about six years between coal exploration in the Eastern part of the country, Illinois Basin, Appalachian Basin and then in oil and gas exploration in Williston Basin. After that I worked or RPI in Boulder, Colorado, which I did mostly

stratigraphic databases and regional studies for oil companies' subscription.

After that I sort of retooled a bit and learned -- took a program at the Colorado School of Mines in environmental-related things. From there I worked temporarily at the Colorado Geological Survey in various things, mostly large-mine reclamation site oversight for the Colorado Health Department and some in underground storage tanks.

From there I went to Minnesota where I worked for -- for Rust Environment Infrastructure involved in several large projects there, probably -- these were environmental in the groundwater-related things. The biggest thing I worked on, probably, was decommissioning of the Minuteman missile sites and later on I worked for Mechanical Engineering, it was a small engineering firm and primarily in geotechnical and environmentally related things so I was there about three years and after that I came here.

MR. ALDER: Thank you. That's a lot of years of experience. Did you say you have a bachelor's in geology, as well?

MR. REINBOLD: I do.

MR. ALDER: And at this time, Mr. Chairman, I'd move to qualify Mr. Reinbold as an expert in geology

and hydrology as it relates to the UIC application process.

CHAIRMAN JOHNSON: Mr. MacDonald, any objections?

MR. MacDONALD: No objection.

CHAIRMAN JOHNSON: Ms. Cassler?

MS. HUDSON CASSLER: No. No objection.

CHAIRMAN JOHNSON: Does the board have any objections?

Okay. We will recognize Mr. Reinbold as an expert.

MR. ALDER: Thank you.

Mr. Reinbold, are you familiar with the application for the injection well we've been discussing at this hearing?

MR. REINBOLD: Yes.

MR. ALDER: And did you review it?

MR. REINBOLD: Yes.

MR. ALDER: Would you tell the board what your review involved and what kinds of documents and things you look at?

MR. REINBOLD: I prepared a UIC injection permit application analysis form, which is sort of a checklist of -- referring to the different requirements and whether or not these requirements had been met, just

for reference. And then I prepare the permit statement of basis, which is a more in-depth review in determining whether they meet all the requirements to proceed and, ultimately, whether we can permit it.

MR. ALDER: All right. And the permit statement of basis, is this document that I have marked as Division Exhibit No. 1; is that right?

MR. REINBOLD: Yes.

MR. ALDER: And that's been provided -- copies of that have been provided to the board.

Would you go through that very briefly and kind of give us the high points of the things -- the issues you look at and your conclusions with regard to this particular application?

MR. REINBOLD: One of the first things we look at is the cement bond logs to determine if there is adequate cement to justify literally what to inject into and initially the -- the interval was 6387 to 6699.

We did have some questions about that with regard to the cement bond. We talked about that and they did lower the interval as had been discussed. So the present interval between 86 and 9,000 feet has, according to the logs, adequate cement bond.

And we look at the -- the depth of the proposed injection interval with regard to how far it is

from the base of the moderately saline groundwater. And in this case we established it as more than 7,000 feet, upwards of 8,000 feet below the adjacent moderately saline groundwater. So that should not be a problem.

And they're required to enter mechanical integrity tests, which they did on June 8th, 2010. It was witnessed by Dennis Ingram from the Roosevelt field office and -- and he found it to be -- it was acceptable.

I looked at water wells in the area of review and what I found, ones that listed the depth, were anywhere in the area of 120 to 500 feet deep so this is far, far above any potential groundwater contamination from the -- from the injection.

MR. ALDER: Did you look at the geology and the presence of aquitards?

MR. REINBOLD: Yes. I reviewed all the cross-sections and maps that Mr. Borer discussed and found them to be fully adequate.

MR. ALDER: Anything else in that -- of significance in that report?

MR. REINBOLD: Yes. They ran the step rate test on June 1st and found a parting pressure of 1813 pounds per square inch. Based on the -- sort of an arbitrary 10 percent reduction for a safety factor, came

up with approximately 1630 psi and, of course, as has been mentioned, we discussed with El Paso personnel and we are okay with the 1700.

I looked at the water analyses for the -- for the waters to be injected along with the -- compared that to the analysis from -- from the injection interval in the well and these are -- appear to be fully compatible. And, as I said, I've looked at the cross-sections, there appear to be no problem in terms of having aquitards to protect the groundwater above, and the zones below the injection.

And so based on all of these reviews, I've concluded that they have demonstrated that it does meet the requirements and it is acceptable for the Division to be permitted as an injection zone.

MR. ALDER: So referring to the last page of that report, would you read just that sentence and give us the date?

MR. REINBOLD: Okay. "The conclusion is the Division staff recommends approval of this application contingent upon no additional or unforeseen information being presented that's relevant to this analysis or modifies the data presented herein." I had just dated November 3rd, 2010, after some of the updated information came in.

MR. ALDER: And have you -- are you aware of any unforeseen information or information that you've heard at the hearing here today that would cause you not to recommend approval?

MR. REINBOLD: No.

MR. ALDER: That's all the questions I have for Mr. Reinbold.

CHAIRMAN JOHNSON: Mr. MacDonald, do you have questions?

MR. MacDONALD: Just for the record, again, Mr. Reinbold, your finding is that the UIC application is complete and technically accurate; is that correct?

MR. REINBOLD: Yes.

MR. MacDONALD: Thank you.

CHAIRMAN JOHNSON: Ms. Cassler.

MS. HUDSON CASSLER: Nothing, sir.

CHAIRMAN JOHNSON: Does the board have questions for Mr. Reinbold?

MR. ALDER: I didn't identify, but Mr. Reinbold first identified this UIC checklist form; is that right? And this is marked as Division's Exhibit 2. It has been provided to the board. Is that the document you were referring to?

MR. REINBOLD: Yes.

MR. ALDER: And that lists the rules and you

found that this application satisfies the rules as indicated there?

MR. REINBOLD: Yes.

MR. ALDER: At this time we would offer --

CHAIRMAN JOHNSON: Mr. Alder, you lost me on that.

MR. ALDER: There should be --

CHAIRMAN JOHNSON: Mr. Reinbold was testifying regarding Exhibit 1.

MR. ALDER: Right.

CHAIRMAN JOHNSON: Okay. And now what did you say about Exhibit 2?

MR. ALDER: And if there are questions or cross-examination on Exhibit 2, I apologize, and would certainly make him available for that. When he earlier testified there was a checklist, I didn't ask him to identify it by exhibit number. And this is the checklist that he testified to.

CHAIRMAN JOHNSON: Okay. All right. Thank you.

MR. ALDER: So, again, I'd offer Exhibits 1 and -- Division's Exhibits 1 and 2 as part of the record in this matter.

CHAIRMAN JOHNSON: And you want them admitted?

MR. ALDER: (Nods head.)

CHAIRMAN JOHNSON: Any objections, Mr. MacDonald?

MR. MacDONALD: No. But just for purposes of clarification, Mr. Chairman, the Division had four numbered exhibits attached to its notice of agency action and some of those are numbered 1, 2, 3, 4, perhaps it be would be better to relabel these two Exhibits 5 and 6.

MR. ALDER: I will do so.

CHAIRMAN JOHNSON: Okay. So Exhibit 5 is the permit statement of basis?

MR. MacDONALD: Correct.

CHAIRMAN JOHNSON: And Exhibit 6 is the UIC injection permit application analysis form.

MR. ALDER: That would be correct.

CHAIRMAN JOHNSON: And you're moving for admission of Exhibits 5 and 6?

MR. ALDER: Yes.

CHAIRMAN JOHNSON: No objection, Mr. MacDonald?

MR. MacDONALD: No objection.

CHAIRMAN JOHNSON: Ms. Cassler?

MS. HUDSON CASSLER: No objections.

CHAIRMAN JOHNSON: Does the board have any objections?

Okay. So Exhibits 5 and 6 will be entered.
(Division Exhibits 5 and 6 were received into evidence.)
MR. ALDER: And I'd offer Mr. Reinbold for questions from the board.
MR. GILL: I have one question, if this is timely.
CHAIRMAN JOHNSON: Go ahead, Mr. Gill.
MR. GILL: You may or may not be able to testify to this. But underneath the City of Coalville there's a gas storage reservoir that involves surface tankage and pumps. Have you ever been there and, if so, what is the surface noise compared to the ambient background noise at distance from those wells?
MR. REINBOLD: I'm not familiar with it.
MR. GILL: If you know. Pardon me, go ahead.
MR. REINBOLD: I am not familiar with it.
MR. GILL: Thank you.
CHAIRMAN JOHNSON: All right, Mr. Alder?
MR. ALDER: Call Mr. Hill, Mr. Brad Hill.
Mr. Hill, would you state your name and position with the Division?
MR. HILL: I'm Bradley G. Hill. I am the oil and gas permitting manager from the Division of Oil, Gas and Mining.

MR. ALDER: And what are your responsibilities with regard to the UIC injection program?
MR. HILL: I supervise and oversee all the permitting of the underground injection program.
MR. ALDER: And have you -- what's been your responsibility with regard to this application?
MR. HILL: Basically I'm Mark Reinbold's supervisor and supervised him and consulted with him in the -- his evaluation of this application.
MR. ALDER: And have -- what are your -- what's your experience with this program, number of years?
MR. HILL: With the UIC program? I've been working with the UIC program since February of 1988.
MR. ALDER: Okay. And did you prepare a memo that has been addressed and delivered to the board with regard to this application summarizing the Division's evaluation and recommendations?
MR. HILL: Yes, I did.
MR. ALDER: Would you summarize that briefly for the record and -- in this matter and for the board?
MR. HILL: Basically, the memo just points out that we have reviewed this application and find it acceptable, that -- also pointing out that we have had some objections and those concerns needed to be

addressed by this board, otherwise, we would have approved this well administratively.
MR. ALDER: Now, were the objections such that -- that the testimony you've heard today would cause the Division to have a different opinion about recommending approval of this injection well?
MR. HILL: I don't think we've heard them all yet.
MR. ALDER: Okay. Those that you've heard so far.
MR. HILL: We haven't heard from the people objecting. I'm satisfied with what we've heard from El Paso.
MR. ALDER: That's a good answer.
That's all the questions I have. I appreciate you're clarifying my question.
Offer Mr. Hill to the board and to the parties for cross-examination.
CHAIRMAN JOHNSON: Mr. MacDonald, do you have questions for Mr. Hill?
MR. MacDONALD: Just -- just a few, Mr. Chairman.
Mr. Hill, I'm going to direct your attention to one of the letters that was attached as part of Exhibit 3 to the Division's notice of agency action.

It's a letter dated February 11th, 2010, that you signed, sent to Ms. Carolyn Elder. Do you -- have you seen that document?
MR. HILL: I don't have it in front of me. I'm familiar with that.
MR. MacDONALD: I'll be happy, if I can, Mr. Chairman, I'm sorry. I'll show Mr. Hill what I'm talking about.
This letter here, February 11th, 2010.
MR. HILL: Yes.
MR. MacDONALD: Okay. In this letter, Mr. Hill, you refer to a 2007 U.S. geological survey that was done in coordination with the Division regarding the injection appropriateness of the Duchesne River, Uintah Green River, and other underlying formations regarding saltwater disposal. Could you kind of outline for the board what that report concluded?
MR. HILL: Yes. We have been involved with the USGS for a number of years. They've been monitoring water wells in Uintah Basin for the purpose of monitoring for influence by UIC Class II injection wells. And, to date, and this program is still ongoing, to date we have seen no contamination by water wells from underground injection in the Uintah Basin.
MR. MacDONALD: So, in other words, as this

letter says, that there's slim, if not impossible, chance of upward migration from injection into the middle Green River formation upward to a potential drinking water source; is that correct?

MR. HILL: We do not consider it likely, no.

MR. MacDONALD: All right. Thank you.

Mr. Chairman, just a point of bookkeeping here again. The Division's notice of agency action had four exhibits attached to it. Technically, I would assume that is part of the record for this cause regardless since the original permit application actually serves as the request or agency action, but to the extent it's necessary I'd like to get Exhibits 1 through 4 from the Division admitted into evidence, as well.

CHAIRMAN JOHNSON: Okay. Mr. Alder, can you go through what those exhibits are?

MR. ALDER: Yes. If I can find my -- my understanding was, I thought you had actually refiled those. So I -- hang on just one second. So Exhibit 1 is the application; is that right?

MR. MacDONALD: Part of it, uh-huh.

MR. ALDER: Exhibit 2 consists of one two, three, four letters of objection, I believe. There might be one more. Yeah, five.

Should have known you were going to do this to

me. So we have a letter from David E. Cassler and Valerie Cassler dated January 2010. We have a letter from W. V. Ingles, March 2nd, 2010. We have a letter from David E. Cassler dated February 10, 2010; a letter from David Cassler and Valerie Cassler, again, dated January 9th, 2010.

Another -- a letter from Bill Ingles dated January 10th, 2010. And then a letter from Carolyn Elder dated January 6th, 2010. And, finally, another letter from William Ingles dated December 31st, 2009, as the date of receipt.

Those are all contained in Exhibit 2 which, I believe, in the body of notice of agency action identified those as objections that had been received requiring this matter to be heard by the board. Some of them are just correspond with the Division.

Exhibit 3 are responses from the Division to Mr. Ingles and Carolyn Elder, from Mark Reinbold and Brad Hill. And Exhibit 4 is the pressure test. I think it's already been admitted as part of the record. Part of your exhibits.

MR. MacDONALD: Again, Mr. Chairman, my opinion would be that this is part of the official record in this cause anyway but I just wanted to make sure that it's understood that's part of the record,

that's why I wanted him go through that.

CHAIRMAN JOHNSON: You're not asking that they be admitted?

MR. MacDONALD: Well, to the extent --

CHAIRMAN JOHNSON: You're saying --

MR. MacDONALD: -- that they're not already deemed part of the record that they be admitted.

CHAIRMAN JOHNSON: Okay. But they are already part of the record.

MR. MacDONALD: They should be, yes.

CHAIRMAN JOHNSON: They're part of the Division's initial filing.

MR. MacDONALD: Correct.

CHAIRMAN JOHNSON: Okay.

MR. MacDONALD: That's all I have, Mr. Chairman for the Division's witnesses.

CHAIRMAN JOHNSON: Okay. Ms. Cassler, any questions for Mr. Hill?

MS. HUDSON CASSLER: None at this time.

CHAIRMAN JOHNSON: Okay. Does the board have any questions for Mr. Hill?

Okay. Thank you, Mr. Hill.

Mr. Alder?

MR. ALDER: That concludes the Division's presentation and I suppose we might reserve the

opportunity to give our final recommendation after we hear the comments or the response by the objectioners for the Respondent.

CHAIRMAN JOHNSON: Okay. All right.

Ms. Cassler.

MS. HUDSON CASSLER: Okay. Let me bring this closer.

All right. Is that --

MR. JENSEN: Excuse me, Ms. Cassler. Mr. Chairman, I need to leave.

CHAIRMAN JOHNSON: Pardon?

MR. JENSEN: I need to leave as we've talked about. So you still have a quorum.

CHAIRMAN JOHNSON: Okay. Mr. Jensen is going to have to leave due to previous business. We still have a quorum of five. Okay.

Ms. Cassler, will you be testifying today regarding facts or --

MS. HUDSON CASSLER: I will be testifying concerning what I've seen and know. I don't know if that consists of facts but, of course, I consider them to be facts.

CHAIRMAN JOHNSON: Okay. Let's have you sworn, then, before you do that.

MS. HUDSON CASSLER: Certainly.

CHAIRMAN JOHNSON: Okay.
VALERIE HUDSON CASSLER,
called as a witness on behalf of the Respondent, being duly sworn, was examined and testified as follows:
MS. HUDSON CASSLER: Yes.
I wish I could be like Mr. Jensen and leave. I'm missing my eight year old's very first Pinewood Derby. I can't tell you how heartbroken I am.
CHAIRMAN JOHNSON: We understand your pain.
MS. HUDSON CASSLER: I would like to thank the chairman and the committee for allowing us to come here today. I'll introduce myself and then briefly introduce the gentleman to my right, who will be allowed, as I understand, to make a short statement after my own.
My name is Valerie Hudson Cassler and my husband, David, and I, as I think I mentioned before, own the property at 801 West 5080 North in Roosevelt which is less than a thousand feet from the proposed Lawson Well.
I hold a doctorate in political science and work as a university professor but since we have young children at home my husband is minding them while I am here but he fully endorses this statement as a joint statement of our concerns.
I would like introduce Mr. Jared Jensen, which

is my immediate neighbor across the street. That location of his house is less than 800 feet from the Lawson -- the proposed Lawson Well. He did not receive the papers and, therefore, did not know that he needed to -- to file an objection, but I -- I'm thankful for the board's graciousness in allowing him to make a short statement after my own.
Now, I'm not here to suggest that anybody in the room doesn't know their business or in any way has some sort of malevolent intent. No way. All right? I've been in conversations with folks from the Division before and have found them professional and they have bent over backwards to answer my questions. I was introduced to Mr. Borer and Ms. Hammock from El Paso before this meeting and I found them full of good intent and willing to work to alleviate any concerns. From what I've seen from the board, I'm impressed. I am impressed. So there's nothing like that here.
But what I would like to suggest is that we're not sure that El Paso has all the facts it needs, right? On-the-ground folk can see and know things that you can't know by doing an Internet search or looking on a website. You can't know by sitting in Denver or even sitting in Salt Lake City and that's what we're here to talk about, to give you a sense of the nervousness of

the local homeowners. People joke about Happy Valley but we've been lately joking about Unhappy Valley, where we live. And so that's our purpose here today.
So let me give you a roadmap of the five points that I'm going to touch on. As a professor I know if you don't have a roadmap, you know, you can get lost. So number one, what we'd like to talk about is structural integrity, migration, and cross-pressure issues. Number two, we'd like to bring up H2S, which has not been mentioned so far in this hearing and related safety issues. Number three, we would like to mention the on-the-ground track record of El Paso's partner in -- in this well, which is Devon Energy. Number four, we'd like to look at some about nuisance issues that we believe have some safety implications, as well. And number six, we're in need of some clarification on legal issue and would like to look at some possible alternatives. So let me go ahead and get started.
This particular well, as you know, last produced in 1983. It's our understanding that it was originally drilled before 1983, making it probably over 30 years old. And as noted, the same pipe was in the ground. As the Division noted in Division Exhibit 1, which I think has been renamed Division Exhibit 5 --

CHAIRMAN JOHNSON: Correct.
MS. HUDSON CASSLER: I may be wrong on that, but I think you did --
CHAIRMAN JOHNSON: I think you're correct.
MS. HUDSON CASSLER: On Page 2 it talks about the cement of being of dubious quality, probably necessitating a squeeze job.
Okay. You know, this -- this raises some issues for us because, migration aside, if you have a failing of the casing, you have a big problem. And those of us who live in this valley know what happens when casing fails. What I'd like for you to do is to take you a little further from that half-mile radius and go to just one-and-a-half-mile radius and I'd like to talk about what's called the Harmston Well.
The Harmston injection site, same generation, drilled at virtually the very same time as the Lawson Well, all right, just down the hill, recently suffered a major breach that cost them $515,000 to correct. They had to insert all new tubing. Furthermore, within the last two years that injection site has suffered three fires.
Mr. Jensen was present for all three of those, the largest of which necessitated 12 support trucks, including fire trucks to put it out. And I'd like to

point out that the Lawson Well, unlike the Harmston Well, is surrounded by a lot of flammable material, foliage as well as homes which are quite near this site.

And so, you know, we have a history of failure right next door in the valley and you can understand our perspective on the ground being a little nervous.

Let me take you to another well, again, within -- well, actually within about one mile, which is the Hurley Well that was being drilled. This is an oil well that was being drilled. When they drilled down, okay -- and a mile away the Harmston Well is injecting, right? As the oil was being drilled, okay, the injected fluid from the Harmston Well flooded the drill zone of the Hurley Well.

Their response to this, by those who who own the Hurley Well, well, it was a total mess, but they had a WDI, a waste disposal, that did the injection at Harmston. They had to lift the water, the produced water that had flooded the drill zone and put it into open-pit evaporation ponds, which set up a huge stink. It stinks to this day because the water has not completely evaporated from those ponds.

All right. So, again, as we look at all the very nice-looking paperwork that looks completely adequate, we on the ground see a history of cut -- very

major failure right next door with some of these injection wells.

Now, I would like to turn to the issues of migration and cross-pressure. Okay. We noted in the revision that the well will be drilled lower, okay, than it had been previously assumed to be drilled -- it's going to be drilled now between 8,642 and 8,981, and we saw the rationale for this. But do you know, okay, that the Harmston Well that we just talked about, which is 1.5-miles away, okay, is drilling at the very same elevations and injecting water in the very same strata.

Furthermore, they're pumping at 2,900 psi. Now, the owner -- the one who's doing the injecting at the Harmston, Jerry texted him, and asked him if he knew about this meeting as we are sitting here. He said, "No. I had no idea. Is there a hearing about this?" And when Jerry told him the depth, he was like, "Oh, my gosh, it's the same strata."

All right. And they're pumping at 2,900 psi there's going to be cross-pressure, as Mr. Quigley was talking about, there's going to be regionalized pressure here that may result in fractures, but, furthermore, if you look at 2,900 versus 1700, all right, who's going to push the hardest? It's going to be the Harmston Well.

If any of those casings are going to fail, it

isn't going to be Harmston, it's going to be Lawson. Lawson is what will fail. And we have seen what failure does and we're very, very concerned about it. And, in fact, we wish there was some way that -- that the folks from WDI would be involved in this because they are scared and they are upset that no one mentioned that they're less than a mile and a half away and pumping in the same strata at 2,900 psi. We're worried, too.

Mr. Quigley, who asked one of the witnesses whether this was proven technology to show if fractures would occur, well, when you get those cross-pressures, the fractures are going to occur, they're not going to occur right there at the well. Okay. This is not a proven technology, this is a theoretical technology, and we would -- we are worried about it.

In fact, on Page 5 of this is Exhibit -- is it 4? Okay. All right. We're a little concerned about the packer set at 8,568 feet.

CHAIRMAN JOHNSON: Which exhibit are you talking about?

MS. HUDSON CASSLER: I believe it's now Exhibit 5.

CHAIRMAN JOHNSON: Okay. So you're talking about the --

MR. M. JOHNSON: Division 4 --

CHAIRMAN JOHNSON: -- permit statement of basis.

MS. HUDSON CASSLER: Yes.

CHAIRMAN JOHNSON: Okay.

MS. HUDSON CASSLER: And the removable bridge plug at 9,000. We were worried about this given what we know and so we're concerned about that.

We would also, then, like to talk about the H2S issue which has not been raised yet.

We would like you to know that there's 11 homeowners aside from some rental persons who live in this area, those are the Dyes, the -- Max Weiss, the Jensens, Mr. Hazel, the Bears, the Elders, the Casslers, Bill Ingles, the Evans, Shawn Hall, Nathan Richards all live in this area, that is, we all live within three-quarter mile and some of us live within a few hundred feet of the proposed injection well.

I'm sure I need not remind you of what happened at -- with Chevron in Rangely back in the 1960s with H2S. On Mr. Jensen's property, the Boom Boom Well, has signage indicating that H2S, okay, is something that people need to be aware of around this well. In the paperwork that was submitted on the water samples, H2S runs from 1 percent to 6 percent to 10 -- to 1 percent to 6 percent in some of these samples. What's

interesting is the samples from Lawson actually fluctuate, which is -- which is interesting.

Those who are downwind of the H2S area are a little worried. If there were to be a breach, perhaps, through this cross-pressure, then the H2S could migrate from the Boom Boom site to the surface through the Lawson Well. And H2S cannot be smelled, it cannot be tasted but, of course, it is utterly deadly. So in light of the cross-pressure issue that we have going, we're a little bit worried. If there were to be a blowout, there is going to be surface contamination, not just airborne H2S, which would be deadly, but there's going to be surface contamination just as we saw with the Harmston Well.

If there are biocides involved, if there are diesel organics, if there's volatile organic chemicals, if there's fracking chemicals, they're going to be on the surface, as well. We're concerned about these issues.

I've been told and, again, I'm not an expert, that such fracking chemicals could include J18, J155, HO28, from an A261 acid, one tablespoon of which is lethal. We've just heard about biocides. It's not just water that could be affected below, it could be water on the surface. It could also be airborne contamination.

There was a U.S. geological survey dated 2010 that showed that there is migration between older water and younger water when drilling is present even in the context of impermeable layers. Okay. This is new information that the U.S. geological survey has come out with and that makes us -- that makes us concerned about all of this.

Now, I'm sorry, I don't know why I am so nervous. Next I'd like to talk about the track record of El Paso's partner, Devon Energy, on the ground. And, you know, when I talk to Mr. Borer, Ms. Hammock, they seemed absolutely professional, absolutely committed to what is good. We are not sure their partner is absolutely committed to what is good.

MR. MacDONALD: Mr. Chairman, if I could interrupt here. I do have to object at this point. There's no evidence whatsoever regarding the relationship of Devon and El Paso with respect to this well and how Devon's operations impact El Paso other than, I guess, the general field operations of another operator.

CHAIRMAN JOHNSON: Ms. Cassler, you have said that you believe Devon Energies is a partner of El Paso?

MS. HUDSON CASSLER: They're on the ground there. It's Devon people you talk to, right? It's

Devon people you talk to and sometimes El Paso people. In fact, we just had a conversation about the partnership of Devon and El Paso regarding damage to the fields of Mr. Jensen right next to this due to seismic testing.

CHAIRMAN JOHNSON: Mr. MacDonald, are you saying that Devon is not a partner of El Paso?

MR. MacDONALD: If you'd like a rebuttal testimony from one of our witnesses but I will proffer that Devon and El Paso are partners in a seismic shoot, but are not related to any injection or operation of the Lawson Well.

MS. HUDSON CASSLER: Right. Well, we understand, though, that the pipeline is going to be, you know, gated, et cetera, et cetera, et cetera. What worries us is that we have a track record of Devon gates being completely left open, being left open for months even giving absolute word of honor that the gates would be locked.

So, you know, who's on the ground with the pipeline, with the gates, with the locks is something that we're concerned about. We wonder, is it going to be Devon who's been on the ground all the time. We're a little worried about that but I'll let that pass.

CHAIRMAN JOHNSON: We note your concerns about

Devon Energy but we'll get back to Mr. MacDonald and his witnesses, then, to talk about any involvement that Devon has in this.

MS. HUDSON CASSLER: I think you should mention that. Gates are El Paso's that were left open. That's interesting.

All right. I'd like to go to the nuisance issues and we've talked a little bit about the nuisance issues before and I believe that both the Division and Mr. MacDonald have talked about them.

But I just wanted to -- to reiterate that one of the reasons that we're concerned about pressure -- I'm sorry, this is a little bit out of order here -- is that in a conversation with the bond log operator of the proposed Lawson Well, we were told that it looks like the perforation zone is too tight, which could raise the pressure inside the pipe above 1700 psi, stressing the pipe even further. So just -- just so you know that this is the kind of thing that we're hearing around the valley.

All right. Back to nuisance issues. Let's talk about lights. Now, we had a nice conversation with Mr. Borer before in which we talked about how bright the lights were around the El Paso wells and how wonderful it would be if there were motion sensors that would

allow the lights to be turned off when there was no one around. But let me tell you, we've got thought the new Dye Well, Hurley, the Horrocks, the Harmston injection site, now the Lawson injection site, Boom Boom Well, and others all brightly lit right there in the area within two miles of each other.

And, you know, again, there are some local regulations about not placing such bright lights on other people's property. So we would urge El Paso to address this issue because we think it is an important private property issue and issue of quality of life.

Traffic, we're -- we're concerned. You know, we're told, yes, that it's just going to be 15 trucks a day, but that's 15 trucks a day on top of all the truck servicing, the Dye, the Hurley, the Horrocks, Harmston, Boom Boom, and so forth. So I would like to know not just, you know, what they're adding but then what the total truck travelage is going to be.

The minimization of dust, it's more than just a fringe issue for us. It is a particulate matter issue. Three of my sons have cystic fibrosis, dare I take them even outside with such large particulate issues.

We're concerned about our wetlands. All right. This is going to be a, you know, below-ground

pipeline, it's not going to be very far below ground. We do have wetlands issues. Should there be some kind of break, there would be, you know, permanent contamination of wetlands in this area.

We are concerned about the noise on the pump. Okay. We hope that El Paso would actually design the structure over the pump so that it served, that it had a purpose to help minimize the sound. We know that that's possible. We know it's been done in other locations.

Furthermore, perhaps given the types of fires we've seen, you know, just a little over a mile away, the Harmston, maybe, you know, this building should have blowout panels so that if there is a fire, the fire's projected upward and not outward to the surrounding homes and -- and the foliage. So that's an issue for us, as well.

Let's talk about water quality. Our -- fortunately, my husband and I got a clean baseline from ALS Labs on 153 different possible chemicals, a nice clean baseline dated February 2010 so we're anxiously looking forward to the results of a new test. But Mr. Jensen, his water has gone from a 9-grade hardness to a 99-grade hardness since the drilling in the area has stepped up. His water filters and softeners no longer work, although they worked for four years

previous. He is now buying bottled water and I'd like to reiterate that neither Mr. Jensen's well nor my family's well is on any of those maps, and ours because it was drilled way before 1995 so we think the monitoring of wells is going to be very important to be done on a very regular basis.

Now, I would like to talk kind of about interesting theoretical or legal issue. And I'm a lawyer. So I'm going to defer to the experts but we know what a mineral right is. It's the right to extract a mineral good for commercial purposes. Okay. Disposing of saline water is not a mineral right. And, in fact, in the exhibit when El Paso was asked specifically whether there will be any enhanced recovery at the well, the answer is, no. It is disposal only.

Now, that's fine, that they're not extracting anything. That's perfectly fine. But I can tell you that even though extraction of mineral rights absolves the extractor from problems with devaluation of surface property, it is my understanding that it may not absolve a disposer from devaluation of surface property.

And I can tell you we just put our -- our property on the market two weeks ago. Okay. The realtor and my family had agreed on a set-upon price before she saw what was around the area. She saw where

the proposed injection site was to be, she saw the Dye Well, she took $50,000 off the asking price. $50,000.

Once that injection well goes in, I don't believe that my husband and I will even be able to recover our purchase price from that property. And I can assure you that there is some significant damage being done to the homeowners in the area.

Now, lastly, let's talk about possible alternatives. I would like to suggest, first off, that the alternative that we see in Division Exhibit 5 troubles us greatly. On Page 4 of Exhibit 5 it says, "In the event that the currently proposed injection interval should prove unsuitable for reasons of inadequate permeability, injectivity, or chemical incompatibility between the disposal water and the formation water, potential alternative injection zones are available. These would include the sandwich zones within the lower Uintah formation, 5,000 to 5240 feet or 4300 to 4700 feet."

Now, based on what Mr. Borer showed us, that looks like a pretty bad alternative and we're worried about that. We wonder if perhaps the Hamilton Well should not be reconsidered.

The Hamilton Well was a disposal well which is southeast of -- still about a mile from the Dye Well and

our understanding is that El Paso could not reach an accommodation with Mr. Hamilton and so turned to the Lawson Well. We believe in light of the possible problems that could be associated with the Lawson Well, problems with the alternative of going more shallow than Mr. Borer would like, then perhaps some consideration of an alternative is proper.

We're also interested in talking about mitigation issues, like motion sensors on the light, like soundproofing the pump building, like dust abatement, and things of this issue. We're not here to shut anybody down. We're not here to take some kind of ideological issue. We're here to protect our families, our children. We're here to protect, also, our private property rights and the value of our property.

I thank you very much and would like to turn the time over to my neighbor, Mr. Jensen, for his short statement.

Thank you.

MR. JENSEN: Does co-counsel have any problems with me making a statement it at this time?

CHAIRMAN JOHNSON: Before we do that, before we go to you, Mr. Jensen, let's ask the other parties if they have any questions of Ms. Cassler.

Let's start with Mr. MacDonald.

MR. MacDONALD: Yes, Mr. Chairman, just a few questions for Ms. Cassler.

Ms. Cassler --

CHAIRMAN JOHNSON: Excuse me. And based upon the questions and issues raised by Ms. Cassler, I think after questions for Ms. Cassler and comments from Mr. Jensen, Mr. MacDonald, if you have any rebuttal testimony you'd like to put on the record with your witnesses, let's do that.

MR. MacDONALD: Yes, I'd like to do that, Mr. Chairman.

CHAIRMAN JOHNSON: But for now let's have questions of Ms. Cassler from Mr. MacDonald and Mr. Alder and from the board.

MR. MacDONALD: Ms. Cassler, just I want to ask you a couple questions. Do you have any education or expertise in geology?

MS. HUDSON CASSLER: I'm glad you asked that. I was actually a geology major as an undergraduate and loved it and have been an amateur geologist ever since. But no credentialed expertise, Mr. MacDonald.

MR. MacDONALD: All right. Do you have any expertise in petroleum engineering?

MS. HUDSON CASSLER: No, sir. I do not. I'm just an on-the-ground homeowner with eyes and ears.

MR. MacDONALD: And, again, the Harmston Well which, and the disposal pits, those are operated by WDI, are they not?

MS. HUDSON CASSLER: I believe they're operated by them, absolutely. I think the ownership is somewhat different.

MR. MacDONALD: Okay. Do you have a residence on the property here?

MS. HUDSON CASSLER: Yes, sir.

MR. MacDONALD: Okay. I was just curious because your mailing address was in Orem.

MS. HUDSON CASSLER: Yes, we have two residences.

MR. MacDONALD: All right. And, finally, as far as the roads leading up to the well site, is it not true that they are county roads leading up to the road that goes north from the section line of section 21 up to the well?

MS. HUDSON CASSLER: Yes. We're concerned about the road, it goes from the county road to the well site.

MR. MacDONALD: Okay. That's the only private road, though, the rest of them are county road; is that correct?

MS. HUDSON CASSLER: I believe that's correct,

yes.

MR. MacDONALD: That's all, Mr. Chairman.

CHAIRMAN JOHNSON: Mr. Alder, do you have any questions for Ms. Cassler.

MR. ALDER: Yes, Mr. Chairman.

There was a statement which Ms. Cassler made about -- Cassler, excuse me.

MS. HUDSON CASSLER: Thank you.

MR. ALDER: What did you say?

MS. HUDSON CASSLER: Yes, that's correct, Cassler.

MR. ALDER: Thank you. -- about cross-flow pressures that the Division would like a clarification if Mr.-- Dustin Doucet, if he could ask a clarifying question on that, that might -- and then we might have a question or two.

MS. HUDSON CASSLER: Sure. Though, I believe that Doug Betts of WDI has to be brought into these deliberations since he is the one who is injecting into that well, knows his pressure, knows what strata he's injecting into. So what I'm giving you is hearsay. I'm a nonexpert. Why isn't that person in this room? I think it's imperative that he have input here.

CHAIRMAN JOHNSON: Mr. Doucet.

MR. DOUCET: Okay. I'm not -- I'm not sure I

need to ask it if she qualifies as a nonexpert. I think my question goes along to get more information on what she meant by the cross-flow pressures and if she could provide more detail on what that means and, you know, what she meant by that -- by that testimony.

MS. HUDSON CASSLER: They're projecting into the very same depths, they're about a mile apart. One's running 1700 psi, one's running 2900 psi. We believe that there is going to be some cross-pressure and that the significant differential between the pressures at which the saline is being pumped will perhaps, as Mr. Quigley pointed out, create or exaggerate regional fracturing and perhaps cause a breach possibly in the casing of the well running at the lower pressure.

MR. DOUCET: Are you saying the pressures are aggregate, you're adding those pressures together?

MS. HUDSON CASSLER: No, sir. Doug Betts says he is running -- he's injecting at 2,900 psi at the same exact depth that the Lawson saline will be injected but the Lawson will be injecting at 1700 psi.

MR. DOUCET: So your concern is more about the pressure on the other well, not necessarily crossflow.

MS. HUDSON CASSLER: No. There's two, right? One is the possibility, as Mr. Quigley pointed out, of, you know, the two waters, one at one pressure, one at

another pressure, meeting somewhere between the two wells and causing a local fracture that is not by either well and then the -- the less probable but still possible scenario of having that which is injected at 2,900 psi cause a weakening or perhaps even a failure of the casing at the Lawson Well. Why? Again, go back to the conversation that was had with the -- the operator at the Lawson Well, who said that they found the perforation was tight and that the pressures rose. Okay.

It's already tight. Okay. They know it's tight. We're worried about what happens when this turns into a fully functioning facility at Lawson.

CHAIRMAN JOHNSON: Let me ask a question of Mr. Nelson which may help clarify. Mr. Nelson, there's no injection going on at the Lawson Well at this time, is there?

MR. NELSON: There is not.

CHAIRMAN JOHNSON: So the pressure at the Lawson Well, basically, is gravity pressure at the bottom of the hole?

MR. NELSON: Yes.

CHAIRMAN JOHNSON: Okay. So the tendency for the -- with the Harmston well, if it's being injected at 2900 psi now, if there is any interference going from

the Harmston Well to the Lawson Well, it would show up more at this point in time since there's no additional pressure in the Lawson Well; is that correct?

MR. NELSON: Yeah. We're not seeing a -- a direct connection of pressure.

CHAIRMAN JOHNSON: Okay. So, Ms. Cassler, I'm not sure I understand your concern there because when they start injecting into the Lawson Well at 1700 psi, that's actually a higher pressure in the Lawson Well than exists right now. So if there is --

MS. HUDSON CASSLER: I wonder if the Lawson Well's been perforated yet.

MR. NELSON: Yes.

MR. NELSON: What was the question, excuse me?

CHAIRMAN JOHNSON: Has the Lawson well been perforated?

MR. NELSON: Yes, it was perforated and tested.

MS. HUDSON CASSLER: Okay. So what we're hearing is that it's tighter than they thought it would be, they're not able to get the saline out like they thought they would.

We wonder if this might be some kind of byproduct of what's going on at Harmston. We wonder about what will happen when Lawson is actually starting

to dispose saline.

CHAIRMAN JOHNSON: The Harmston Well is being injected at this time.

MS. HUDSON CASSLER: Yes.

CHAIRMAN JOHNSON: And the Lawson Well is not.

MS. HUDSON CASSLER: Right. But, obviously, they have perforated and they tried to do some testing about what the rate of flow out of those perforations are.

CHAIRMAN JOHNSON: So if there's any influence by the Harmston Well on the Lawson Well, it's actually the worst-case scenario right now, isn't it? Because there's no additional pressure being put into the Lawson Well. When the Lawson Well is pressurized then there will be less tendency for fluid to go from the Harmston Well to the Lawson Well, if I understand correctly. So -- so, Ms. Cassler --

MS. HUDSON CASSLER: I think -- I think Mr. Jensen has a follow-up statement, just a comment, would that be all right?

CHAIRMAN JOHNSON: Go ahead, Mr. Jensen.

MR. JARED JENSEN: Her question she's reaching to is what happens when a aquifer gets full of saline water, which way is the pressure going to go, being dictated -- when we drilled the Hurley Well, the

water -- had already migrated towards their well.
We're just wondering when you get all those zones filled up with water down at the aquifer, you're going to have, you know, the Harmston Well, then Lawson both filling the aquifer up, what's going to happen at 2900 and 1700 aggregate pressure, which one's going to give when it's full? Is there going to be a failsafe, a pressure relief valve is -- what's going to be monitoring when that aquifer is full and they're down to the saline injection?
MR. MacDONALD: Mr. Chairman, again, if Mr. Jensen's going to make a statement, that's one thing. If he's going to give testimony, he needs to be sworn.
CHAIRMAN JOHNSON: Okay. I believe he's asking a question.
MR. MacDONALD: Okay.
CHAIRMAN JOHNSON: At this time. And, Mr. Nelson, can you answer that question?
MR. NELSON: Yeah. When we're discussing pressure, the Lawson well is to the north and east of the WDI injection well, and, if anything, when pressure is encountered it will preferentially inject to the north, to the -- to the zones of the lower pressure.
And so it's not -- you're not adding the two pressures together and squeezing the rock. It's going

to filter out in directions where that pressure has not been encountered.
MS. HUDSON CASSLER: So that would be Harmston's flowing north.
MR. NELSON: And the other question --
CHAIRMAN JOHNSON: But the point I'm trying to make and the reason I don't understand your concern, Ms. Cassler, is that there would be more tendency for that now because there's no pressure to counteract the pressure coming from the Harmston Well, there's no pressure in the Lawson Well right now.
MR. MacDONALD: And the aquifer's not full. What we're worried about is when the aquifer is full.
MR. NELSON: And then to respond to that, the rates that we inject are directly a function of the pressure we're allowed to inject. So as that zone pressures up, as it gets full, as they've stated, your rates will drop, your pressure will not increase. So we're injecting at a constant pressure and the rate is variable that will change. So as the well gets full or the reservoir fills, your rate will drop to a point where likely it will become uneconomic.
MS. HUDSON CASSLER: Yeah, and then it may be uneconomic sooner than one thinks because of the activity of the other injection well in the area.

CHAIRMAN JOHNSON: Mr. Quigley.
MR. QUIGLEY: Yeah. I think a couple of things I'd like to clarify here. Number one, is this step rate cast demonstrated the suitability of the interval to receive this fluid at a certain pressure; is that not correct?
MR. NELSON: Yes.
MR. QUIGLEY: So there's no question about the permeability or the porosity or whether or not the fluid -- and then you are regulated to a pressure --
MR. NELSON: Yes.
MR. QUIGLEY: -- of injection so if there was any reason that the pressure -- that the injection -- the zone, the geologic horizon that's identified to receive the fluid can't receive the fluid at that pressure or less, then you can't inject.
MR. NELSON: Exactly.
MR. QUIGLEY: And so I believe that -- I mean, whether or not that happens sooner than later is an economic risk you take.
MR. NELSON: Yes. And speaking to the step rate test, it not only identifies the pressure that we're looking -- the maximal -- the maximum allowable injection pressure but it also gives us an idea of what -- what the injection profile's going to look like.

At 1,811 psi, we were injecting at three barrels a minute which would give us by far enough injection capacity to make this an economic project.
As we inject full time, we don't expect that same result, but a fraction of that result would be suitable. So the statement that it's tight or we can't inject into it, I don't think is an accurate statement.
MR. QUIGLEY: So my next question probably goes to the Division and the question is, as we have another well within a mile and a half that's being used as an injection well and it's been stated that the injection pressure for that well is approved at 2900 pounds so -- is that correct?
MR. HILL: I'm not sure what the maximum pressure is on that. I'd have to go pull the well file. It would have gone through a similar permeating procedure and should have had step rate tests or some sort of pressure estimate. As far as fracturing goes, I can't say specifically what was done on that well.
MR. QUIGLEY: But the same procedure would have been required.
MR. HILL: We would have gone through the same permeating process and even fracture pressures can vary from place to place and different zones but I really can't say for sure about that Harmston Well.

MR. QUIGLEY: Thank you.
CHAIRMAN JOHNSON: Mr. Gill.
MR. GILL: Let me ask the question, kind of put myself in Ms. Cassler's place. If you have two injection wells a mile and a half apart with the pressures that are being described here as taken at face value, have you seen communication between two wells in that distance of a mile and a half, three miles and four miles?
MR. HILL: It is possible. Generally, we don't. Fully dependent upon the specific reservoir properties, variations, you know, increased porosity and permeability could increase and would increase the rate of influence of two injection wells. The tighter they are, the less far water is going to move away from those wells. There has been studies done. I can't speak to specifics but looking at those studies, I've always been very surprised at how small the area of influence is around these injection wells and that is also partially how we came up with our areas of review for injection wells.
We -- in the wells that the State of Utah has privacy on, we look within a half-mile radius, EPA -- where EPA has jurisdiction, they only look at a quarter-mile radius around those wells.

MR. GILL: Thank you.
CHAIRMAN JOHNSON: I believe we're at the point the Division was asking questions of Ms. Cassler.
MR. ALDER: I don't believe the Division has any other questions.
CHAIRMAN JOHNSON: Okay. Does the board have any other questions for Ms. Cassler?
I've got one question. Ms. Cassler, you talked about what you called the Boom Boom Well, and you said there's a sign there warning of H2 -- the possibility of H2S.
MS. HUDSON CASSLER: Yes, that's on Mr. Jensen's property and he's right here so he can give you eyewitness about what the sign says.
CHAIRMAN JOHNSON: Okay. Well, let me ask you, because we haven't sworn Mr. Jensen yet, but have you ever smelled anything at the Boom Boom Well?
MS. HUDSON CASSLER: I, myself, have not been at the Boom Boom Well. I have seen the sign from a distance but I, myself, have not stood near the Boom Boom Well in part because it says there's, you know, H2S --
MR. QUIGLEY: Good idea.
MS. HUDSON CASSLER: -- to be honest with you.
CHAIRMAN JOHNSON: Okay.

MS. HUDSON CASSLER: Which I understand you can't smell anyway so I'm sorry to be such a chicken.
CHAIRMAN JOHNSON: Okay. Mr. Jensen, my understanding is you want to make a comment?
MR. JARED JENSEN: Yes, I'd just like to make a statement when we're done and then the board can take that statement or I can have it rebutted from the attorney here.
CHAIRMAN JOHNSON: Okay. Our normal procedure is at the end of testimony, if anyone wants to makes a comment, they can make a comment.
MS. HUDSON CASSLER: So make your comment.
CHAIRMAN JOHNSON: Well, we're not at that point yet.
MS. HUDSON CASSLER: Oh, okay. If you want to here from landowners, homeowners, he's the right person to ask.
CHAIRMAN JOHNSON: Usually we ask for comments at the end.
MS. HUDSON CASSLER: Okay.
CHAIRMAN JOHNSON: Okay? All right.
MS. SEMBORSKI: Mr. Chairman --
CHAIRMAN JOHNSON: Go ahead.
MS. SEMBORSKI: -- I had a question --
CHAIRMAN JOHNSON: Ms. Semborski.

MS. SEMBORSKI: -- for Ms. Cassler.
Have you talked to any of the county entities like State Planning and Zoning or the building department, the county commissioners, or anything about the lights, dust, the sound, the traffic issues?
MS. HUDSON CASSLER: Actually, I had made some phone calls to try and figure out who it is I should be talking to. Because, as you know, there's sort of an array of county and city officials.
I have not figured out who I'm supposed to talk to yet but I'm in process as we speak to talk about those issues.
MS. SEMBORSKI: I was just curious being there were ordinances, you know, with respect to such --
MS. HUDSON CASSLER: My neighbors tell me that there are ordinances regarding lights and regarding the noise. I don't know about dust, but I know particulate matter is something that is regulated, I think, at the state level. Perhaps I'm wrong on that.
MS. SEMBORSKI: Thank you.
MS. HUDSON CASSLER: Thank you.
CHAIRMAN JOHNSON: Mr. MacDonald, do you or one of your witnesses know, will a conditional use permit be required by the County for the operation of the well as an injector?

MR. MacDONALD: We have Ms. Cathy Hammock who is the landman for El Paso. She's not been sworn in but she can testify to that if you want her to, Mr. Chairman.
CHAIRMAN JOHNSON: I think it'd be useful if she would.
MR. MacDONALD: If you'd like, I was going to use her as a rebuttal witness anyways, we can wait till that point.
CHAIRMAN JOHNSON: I think we're about to that point.
MR. MacDONALD: All right.
CHAIRMAN JOHNSON: I don't think anyone has any more questions for Ms. Cassler; is that correct?
Okay. So, Mr. MacDonald, if you would like to try to address the questions of concern raised by Ms. Cassler.
MR. MacDONALD: Yes, Mr. Chairman, and a couple of rebuttal questions. I will address her main points from a legal standpoint in a rebuttal closing statement.
CHAIRMAN JOHNSON: Okay.
MR. MacDONALD: What I'd like to do, Mr. Chairman, I also have Ms. Cathy Hammock who is the landman in charge of this area for El Paso, she did

attend the hearing but was not going to be utilized as a witness but as a rebuttal witness. We will call her now and I'd ask she be sworn in at this time.
CHAIRMAN JOHNSON: Yes, please.
CATHERINE HAMMOCK,
called as a witness on behalf of the El Paso, being duly sworn, was examined and testified as follows:
THE WITNESS: I do.
THE REPORTER: Thank you.
MR. MacDONALD: Ms. Hammock, would you please state your name and address for the record?
MS. HAMMOCK: My name is Cathy Hammock and my address is 1099 18th Street, Suite 1900, Denver, Colorado 80202.
MR. MacDONALD: What is your position with El Paso?
MS. HAMMOCK: I'm a senior staff landman.
MR. MacDONALD: And as part of your duties did this area of greater Altamont/Bluebell field, in particular, this area around the injection well?
MS. HAMMOCK: Yes, it is.
MR. MacDONALD: All right. Couple of rebuttal questions. First of all, there's the question of Devon's participation as a partner with El Paso. Would you please clarify that for the board?

MS. HAMMOCK: Devon is not partner with us in the Lawson Well. We are a partner with them in a seismic shoot that Mr. Jensen and Ms. Cassler informed me is right in that same area. I don't handle the seismic shoot, but I do know we're partners with Devon there. And devon is the operator of that seismic shoot.
We were made aware of some issues just before the hearing that from Mrs. Cassler and Mr. Jensen that occurred on the surface of that seismic shoot that we were not previously aware of and we are looking into but we do not operate that operation.
MR. MacDONALD: And, again, they are not partners with respect to this injection well?
MS. HAMMOCK: That's correct.
MR. MacDONALD: All right. Secondly, does El Paso have an agreement for the saltwater injection site with the surface owner of where the well is at?
MS. HAMMOCK: Yes, we do, with the Dyes. We have a surface lease and a saltwater disposal agreement with the Dyes.
MR. MacDONALD: All right. Finally, directing your attention to Mr. Chairman's question regarding knowledge of any conditional use permit required under the Duchesne County zoning ordinance with respect to this injection well?

MS. HAMMOCK: There is not a conditional use permit required by the County. I spoke to Mr. Mike Hyde with the Duchesne County Planning and Zoning Commission as we were going through this process and double-checked that and he confirmed there is not a condition use permit required.
CHAIRMAN JOHNSON: Okay.
MR. MacDONALD: That will conclude my examination of Ms. Hammock.
CHAIRMAN JOHNSON: Mr. Alder, do you have any questions for Ms. Hammock?
MR. ALDER: No, thank you, Mr. Chairman.
CHAIRMAN JOHNSON: Mrs. Cassler, do you have any questions for Ms. Hammock?
MS. HUDSON CASSLER: No, sir.
CHAIRMAN JOHNSON: Does the board have any questions?
Thank you.
MR. MacDONALD: Mr. Chairman, I also -- Mr. Nelson would like to make one statement of clarification with respect to the hydrogen sulfide comment and what the exhibit -- the water -- is the compatibility.
MR. NELSON: Yes.
MR. MacDONALD: That would be Exhibit O. He

wants to make a point of clarification.

MR. NELSON: Yeah, just to clarify. I believe the statement was that the water analysis reflected a H2S concentration of 1 to 6 percent. I just want to clarify those numbers are in milligrams per liter, not percentages so that's a 1 to 6 parts per million. And the danger factor of that -- obviously, for safety concern, we'd put signs up.

The Boom Boom is an oil well with oil storage tanks where H2S would more likely be present. These wells are still low enough concentrations it's considered sweet, it's not a sour oil -- oil well. And the danger mostly is for the gaugers when they're opening up the gauge hatches on top of each tank.

So I just wanted to clarify that.

CHAIRMAN JOHNSON: Thank you, Mr. Nelson.

Mr. MacDonald, would you like to have any of your other witnesses address --

MR. MacDONALD: No. That's the end of our witnesses, Mr. Chairman.

I'd like to reserve my rebuttal statement if it's possible after Mr. Jensen's statement, as well.

CHAIRMAN JOHNSON: All right. Mr. Jensen. Would you like to address the board regarding this matter?

MR. JARED JENSEN: I would like to address the board, if I could it at this time.

Just as a property owner, I was approached by Mr. Cameron Moss and John Whiteside who solidified a right-of-way easement from me and in that right-of-way agreement. They agreed this would be a direct injection from an El Paso mainlines, there wouldn't be no tanks on the property, we'd have very little, if anything, but pumpers to go up there and make sure that the lines were working and the pressure gauges were set properly. That was our agreement to do the right-of-way.

Also, on the right-of-way, we only gave them 40 feet, not 60 feet. They went in there with the motor grader and decided to enlarge that to 60 feet. They're taking out all the sagebrush and piling it on my fence. It still hasn't been mitigated to this date. That's one issue I have with them.

Back to communications of the well. When they drilled the Hurley Well, they had approached WDI and asked them to shut down for three days and import that -- the water that communicated from the injection site to the Hurley Well and remove that water to their disposal pits where it could be reinjected. My understanding, the WDI, is them surface storage ponds are only -- only supposed to be used and permitted for

the simple use if they have a problem or they can't inject, it's a temporary service of about 30 days before they remove all the water.

We still don't have proof that water has been removed and why would it generate the issue if the water was pumped to the Hurley Well, why does that make it an emergency for WDI to store that in their disposal pond when it could have been took to another legitimate facility, or is this just a cause of ease to remedy the problem. So there's where you have the communications on the well, that's where the main concern is.

If you start pumping one way, you also migrate the other. You're locking off the cement job, the liner job, or a casing job, what's going to prevent that. And in their own testimony with that material, it's going to migrate north. The Lawson 1-21A is due north of the Harmston Well.

Doug Betts communicated to me, he says, "The only problem I have with them having an injection well is we're making our money on X amount of barrels per day, we just put $515,000 into their well," because they had an internal tubing blowout which had a problem with their casing, and they had to go down and replace all that tubing, I believe it was like $55 a foot for the tubing, then they had to go down and do the mill job and

cut and perf and pull out parts of the surface casing and redo that in order to satisfy the Division of Oil and Gas and Mineral rights.

Therefore, we've already had a failure. I've been there on three fires. If I wasn't there to discontinue the triplex pumps, they would have, with the pipelines exposed, we had the 300 and 500-barrel tanks blowing the lids off approximately 300 feet in the air. Fire department was there. If we wouldn't have stopped them pumps from moving, we would have had a bigger problem than we had.

Four years prior we had a lightning strike that set the surface water on fire. The whole town was evacuated in our area due to the smoke and the flames. We actually had that pond light up twice. That's why we had a lawsuit against them to clean up the issues of the outside storage.

Therefore, when John Chase become owner of -- the untimely death of Mr. Denver, John Chase has come in, he has put 1500-barrel tanks up and three units. We have never seen them dispose of oil or water residues exterior to them until this communication of the wells. They have got rid of all the sulfur smell. This company has done, in my mind, everything they can do to prevent any problem with -- I've still been there on three fires

in two years.
Now, we're looking at -- we have all the riparian grass, all the sagebrush, the trees, and the homes. Now these fires weren't just little fires. There was over 12 vehicles that responded to these fires to put them out.
So our concern is as a homeowner and a landowner, can't El Paso, one, just help us mitigate the H2S problem for the cities, put up a simple detector that's on all the well sites I've ever worked on, maybe put an air flag like they have in Rangely to where if you know an H2S monitor goes off -- in Rangely they have an air flag so when the wind blows a certain direction you know to run the other way. Being with H2S, you can't smell it, and when you get in contact with it, all of your exterior members quit, your respiratory quits, and you suffocate to death.
We have little kids, families. She has two kids with cystic fibrosis.
MS. HUDSON CASSLER: Three.
MR. JARED JENSEN: There. I don't think that we have -- I think El Paso should just help us, just account for the issues we have and put our minds at ease and this problem can go away.
We know they have the right to make money, but

there's inconsistencies with the bond log where they've had to do a squeeze job to repair. So what's the continuity of the internal and external casing so when they run the tubing they claim that they had that blowout at 1,000 psi.
Now, if you're pumping at 1700 and you have a part like the Harmston did, their pipe parted. When their pipe parted guess what happened, it went into the external part but they contained with other pressure, it still overpressurizes it and, therefore, they had a casing fire.
That's our simple question. So if you have a casing failure and everything decides to migrate up the pipe and out the casing of the wellhead, how do they substantiate being able to account for fluids on the surface, the possibility of the fire, and the possibility of H2S, you know?
And then the particulate for her children. They could maybe use a mag chloride or something. If they use straight gravel, it's going work its way down into the ground, dust will come back up. I don't think we're asking too much for them to expound on it, to help us out.
And then the next issue I have is with Mr. Nelson to clarify, I'm part of the North Crescent

Water Users Association, there has been a bond that's been tried to be reached for $5 million to bring culinary water to our area. Roosevelt City, in fact, got a bond and stopped three miles south of our homes just due to pressurization and lack of funding.
But what concerns me the most with Mr. Nelson, he said, "The Future water damage could be mitigated by culinary water." Why would you make that claim, if there's going to be no migration of any frack fluids or saline injection? We shouldn't have to sit here and just have the question that it may happen, but what if it does happen? How can we solidify the problem with protective measures with either pressure-control situations and more monitoring on that injection well.
And to the noise factor. I'm at the WDI Well approximately three times a week. If you're standing at their trplex pump at their building, it's hard to hold a communication. Now, as everybody knows in the morning even when you're hunting your voice will travel even farther, there are different times and dates -- a different -- in the morning your voice will travel farther than the afternoon and same with the nights. I think that they need to have a noise regulation. I know Duchesne County does have one.
But we just want it to be quiet and when they

construct the building, they put FRP panels up, then they're not going to have an issue with the fire migrating to the substructure outside the well with blowout sheets on the roof, all your fire will then ventilate to the surface, the fire department can move in, put all of their fire extinguishing to use through the roof and solidify the problem. We don't feel that's too much to ask.
Then on the step rate question. How long has that step rate been in effect? It's not in effect now. They did it during a test. Our question is is where they have inconsistencies with their cement log and their internal pipe, you know, they already claim if this fracture don't work, let's move up to the undesirable part.
Well, if it's undesirable in the first part, why do we do it again. Let's just try and protect the landowners or the homeowners and just put us at ease, we just want the simple questions asked, protect us, we'll be -- you know, we can be fair on both sides.
I've made my living in the oil field, I really can't complain with what's going on, but I just have some concerns that I believe needs to be addressed and then when the board addresses them, we will have to be satisfied with your judgment.

And that's all I have to say today. Thank you for your time.

CHAIRMAN JOHNSON: Thank you, Mr. Jensen.

Is there anyone else present who would like to address the board on this matter?

Okay. Seeing no one, let's have the three parties give closing arguments. Are we at that point, Mr. MacDonald?

MR. MacDONALD: That's fine with me, Mr. Chairman.

I would prefer to have the last say as the applicant but however you would be pleased to go.

CHAIRMAN JOHNSON: Okay. Mr. Alder? Can we start with you?

MR. ALDER: Yes. Mr. Chairman, with all respect to the concerns of the parties that have objected, the Division and the board is governed by the rules and can't fix everything. And if the rules are satisfied, the injection well should be approved.

The Division has reviewed this and found it was suitable for approval and they, rather than call another witness, have indicated to me and I'd proffer that their testimony is that based on the testimony and objections and information that's heard, although there are issues that perhaps other agencies can address,

there's nothing that would modify their initial recommendation to approve this injection well in that it does satisfy the requirements of the rules.

That's all I have.

CHAIRMAN JOHNSON: Ms. Cassler, would you like to summarize?

MS. HUDSON CASSLER: Yes, sir, I would like to summarize.

With all due respect to Mr. Alder, I've sat here all day. I've sat here all day and I have seen that the purpose of this board is not just to see that the rules are followed but to see that the rules do their job, that there was a purpose for the rules and that, apparently, it is the board, not necessarily the Division, whose task it is to look at that purpose and see if it's been satisfied.

And I think the purpose is to make sure that everyone is protected to the degree they can.

That the commercial interests of El Paso are protected. Absolutely. But, also, that the homeowners are protected, as well.

And so while Mr. Alder has said, you know, the rules have been satisfied, you know, the Division's hands are tied and needs to go forward, I have sat here and listened to the Genwal case, I've listened to the

Bryce Haas case and I have seen that -- that it is not improper to say, "What are these rules for?" And I am hoping that that is the rule that you as the board see yourself in.

The kinds of things that we're asking for, motion sensors on the lights, express soundproofing on the housing of that pump, you know, other assurances, I think -- I continue to think that you as the board must ask Doug Betts of WDI who's running that Harmston Well, you know, for some more information about what that well is doing, where that water's going, what the issues of communication are and so forth. I don't think any of that is unreasonable, improper, or inappropriate.

I think it follows the spirit of the rules and so while I know that the Division feels its hands are tied, I appeal to the board, I ask you, I -- you've got a place that's now calling itself Unhappy Valley and I think there are modest and reasonable measures that could be taken to lead out as an example of how to harmonize the commercial interests of El Paso and the protection and private property interests and quality-of-life concerns and safety concerns of the homeowners.

Utah can do this. We're a great state and we have a lot of oil and gas mining. We can get it right

here and I ask you to consider that perspective as you consider this particular case.

Thank you so much, Mr. Chairman, and the board.

CHAIRMAN JOHNSON: Thank you.

Mr. MacDonald.

MR. MacDONALD: Thank you, Mr. Chairman. I'll be brief.

Again, you know, I certainly don't want to minimize or discredit Ms. Cassler's concerns. They're legitimate concerns. As a homeowner I would be concerned maybe if I was in the same situation.

But as a practical and legal matter, it's legally irrelevant. The matters in front of you are set forth by statute and rule. The testimony you've been given by El Paso and the Division is from credible expert witnesses. Ms. Cassler's testimony, while, you know, certainly deserving of an ear, yet most of it was hearsay, most of it was regarding an operator of a well that's a mile and a half away, which is outside the region concerning this matter, and does not concern El Paso. It's not an El Paso situation.

I think the evidence that you've had is that the -- all the criteria, that the whole purpose of this UIC permit injection program that was handed down to the

State of Utah by the EPA, all those criteria have been met.

Certainly communication is always important. I think you heard today that the El Paso people went and talked to Ms. Cassler about some of her concerns. I would hope as counsel that that kind of communication with the landowners out there continues, it's important. A lot of it's simply just information share.

I think I can speak that El Paso will make good-faith efforts to do that, but as a practical and legal matter, all the criteria have been met. This is appropriate for approval. You heard the Division support that and, again, it's all by credible expert testimony that all of this has been satisfied.

I do want to remind the board on a procedural matter, that Mr. Jensen's statements are to be taken as statements. He was not a sworn witness. He was not subject to cross-examination.

For the record, the mailing went to the property owner shown by the Duchesne County records, which is Emerald. I can't remember the exact name of the company, but it's Emerald and -- I'm sorry?

Emerald Marketing and what?

Marketing and Trading. And that is the owner of the property that is of record. So the service was

appropriate, as well.

So he was not an appropriate respondent, he was simply making a comment.

And, again, the reason I did not object to that was because I do believe that people have an opportunity to voice their opinion and the board needs to hear that. But it needs to be kept in the concept of what is your legal responsibility and what's legally relevant here.

And in that regard, El Paso has satisfied all the statutory and regulatory requirements and we would ask that you allow the permitting of this well at a 1700 psi surface injection rate.

Thank you, Mr. Chairman. Thank you, board members.

CHAIRMAN JOHNSON: Thank you, Mr. MacDonald.

Okay. I'd like to thank all the parties.

The board will take this under advisement. I think we will meet for a few minutes but I don't want to have people wait, expecting us to make an announcement on this tonight.

So we will take it under advisement and get back to the parties as soon as we can with a decision.

MR. MacDONALD: Do you expect it will be before the next hearing?

CHAIRMAN JOHNSON: Oh, absolutely. Absolutely before the next hearing.

MR. MacDONALD: All right.

CHAIRMAN JOHNSON: Okay. So anything else?

Okay. Then we will adjourn for today.

I do appreciate all the parties participating today. I know it's been a long day and we appreciate your sticking with us.

Thank you very much.

MR. MacDONALD: Thank you.

(PROCEEDINGS IN THE ABOVE-ENTITLED MATTER WERE CONCLUDED.)

REPORTER'S CERTIFICATE

STATE OF UTAH)
: SS.
COUNTY OF UTAH)

I, Jeff S. Eaton, do certify that I am a Certified Court Reporter in and for the State of Utah.

That as such reporter, I reported the occasion of the proceedings of the above-entitled matter at the aforesaid time and place.

That the proceeding was reported by me in stenotype using computer-aided transcription consisting of pages 4 through 140 inclusive;

That the same constitutes a true and correct transcription of the said proceedings;

That I am not of kin or otherwise associated with any of the parties herein or their counsel, and that I am not interested in the events thereof.

WITNESS my hand at Provo, Utah, this 3rd day of February, 2011.

____
Jeff S. Eaton, RPR, CSR